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CLASSIFICATION BULLETIN

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CONTAINING THE

CLASSIFICATION OF SUBJECTS OF INVENTION REVISED
BY THE CLASSIFICATION DIVISION OF THE
UNITED STATES PATENT OFFICE.

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CLASSIFICATION OF SUBJECTS OF INVENTION

Revised by the Classification Division, January, 1913—June, 1913.

Changes in Classification.

(ORDER NO. 2,029.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., January 18, 1913.

It is hereby directed that classes 106, Plastic Compositions, and 134, Liquid Coating Compositions, be transferred from Division XV to Division VI, to take effect immediately.

E. B. MOORE,
Commissioner.

Changes in Classification.

(ORDER NO. 2,031.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 5, 1913.

The following change in the classification of inventions is hereby directed, to take effect immediately:

In Division XXXII, class 221, Dispensing Cans, abolish subclass—

Hand oilers—

53. Holders,

leaving the title of the subclass thereunder to still read—

Hand oilers—

Holders—

54. Rod.

The patents formerly in the subclass abolished above have been placed in class 221, Dispensing Cans, subclass 33, Hand oilers, Attachments, and class 248, Supports, subclass 30, Miscellaneous.

ERRATA.

The following changes in the Manual of Classification, as revised to January 1, 1912, are hereby directed:

On page 28, class 24, Buckles, Buttons, Clasps, Etc., at the top of the second column, cancel the second word, "Harness," and move the subclasses formerly controlled thereby one space to the left, to read under the word "Buckles" above.

On page 32, class 36, Boots, Shoes, and Leggings, add subclass—

78. Welts and rands.

EDWARD B. MOORE,
Commissioner.

Changes in Classification.

(ORDER NO. 2,034.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 20, 1913.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In Division X, class 21, Carriages and Wagons, abolish the following subclasses:

87. Follies and r'ims

49. Spoke-sockets.

Tires—

110. Metallic.

64. Traction-wheels.

In same division, same class, establish the following subclasses:

182. Body frames and running

gear.

186. Body-leveling devices.

154. Convertible road and rail

vehicles.

183. Miscellaneous.

203. One-wheeled vehicles.

146. Portable tanks and boil-

ers—

147. Leveling devices.

Running gear—

138. Underframes, parallel

axles.

201. Wheeled tongue-sup-

ports—

205. Single wheel, swiveled

mounting—

206. Spring-mounted

tongue.

Short-turning gear—

143. Oppositely swinging

axles—

145. Axle extensions pivot-

ally and slidably con-

nected,

144. Cross reaches,

139. Stub-axle type—

140. Four wheels steered,

141. Stub-axles—

142. Pivot in wheel plane.

Steering gear—

194. Checks—

195. Fluid,

202. Single wheel,

196. Stub-axle type—

197. Angle arms link-con-

nected—

200. Automatically gov-

erned,

198. Rotary shaft and

gearing—

199. Interposed trans-

mission link,

201. Swinging axle,

193. Three or four wheels

steered.

185. **Three-wheeled vehicles.**

184. **Vehicles with five or more**

wheels.

137. **Vehicle trains.**

191. **Wheeled vehicles, occu-**

pant-steered.

Wheels—

165. Follies—

178. Joints,

170. Metallic,

166. Split, adjustable—

167. Screw adjustment—

168. Right and left

threaded bolt,

169. Wedge adjustment,

171. Spoke-connections—

172. Adjustable spoke—

173. Screw adjustment,

Wheels—

Follies—

Spoke-connections—

177. Combined felly joint,

174. Spoke-caps—

175. Combined felly

joint,

176. Side extensions,

155. Non-resilient tires—

162. Fastening devices—

163. Combined felly joint,

164. Interposed clips or

wedges,

160. Rail-climbing devices,

156. Split, adjustable—

157. Screw adjustment—

158. Right and left

threaded bolt,

159. Wedge adjustment,

161. Supplemental tires,

179. Resilient-tire rims—

180. Metallic,

181. Spoke-connections,

207. Traction—

217. Cylindrical rim, pro-

jecting spurs,

215. Detachable spurs,

214. Detachable traction

tire,

208. Movable spurs—

209. Adjustable—

210. Alternate projection

and retraction,

211. Individually ad-

justed,

212. Spring-protected,

216. Parallel rims, connect-

ing spurs,

218. Recessed rim,

213. Supplemental rim or

wheel,

149. **Wheel substitutes—**

150. Portable track—

151. Annular,

152. Steppers.

148. **Wind shields.**

The foregoing subclasses are made up of patents from the four subclasses abolished above and of patents from other subclasses in class 21.

In connection with the above the following changes in definitions are also directed:

In class 20, Wooden Buildings, subclass 92, Splices and joints, change the second search note to read:

21—Carriages and Wagons, subclasses 163, Wheels, Non-resilient tires, Fastening devices, Combined felly joint; 171, Wheels, Follies, Spoke-connections, and the subclasses thereunder, and 178, Wheels, Follies, Joints

In class 114, Ships, subclass 144, Steering mechanism, change the second search note to read:

21—Carriages and Wagons, subclasses 90, Motor-vehicles; 114, Traction-engines; 191, Wheeled vehicles, occupant-steered, and 192, Steering gear, and the subclasses thereunder

EDWARD B. MOORE,
Commissioner.

REVISED CLASSIFICATION OF PATENTS.

Changes in Classification.

(ORDER No. 2,035.)

DEPARTMENT OF THE INTERIOR,

UNITED STATES PATENT OFFICE,

Washington, D. C., February 25, 1915.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In Division XIV, class 140, Wire Working, establish the following subclasses and definitions:

Article making or forming—

92.1. Forms and frames—

92.2. Revolvable.

92.1. **ARTICLE MAKING OR FORMING, FORMS AND FRAMES.** Limited to devices on or by which material, generally wire, is wound to produce a coil of predetermined form or shape, comprising mostly formers for winding armature coils.

Search Classes—

153—METAL BENDING, appropriate subclasses—for example, 21, Angular, Reciprocating bender, for shaping armature coils by bending, also 64.5, Coiling, Flat wire, Edge winding, for all edge-winding devices.

242—WINDING AND REELING, subclasses 50, Cordage, Cards, boards, and forms, for winding cordage on forms, and 61, Reeling and unreeling, Fabrics, Cards, boards, and forms, for winding webs or fabrics on forms.

92.2. **ARTICLE MAKING OR FORMING, FORMS AND FRAMES, REVOLUBLE.** Forms or frames that are adapted to be rotated for winding the material to shape or in combination with the devices or machines for rotating them.

The patents in the above subclasses have been taken from class 242, Winding and Reeling, subclasses 14, Forms and frames, and 15, Forms and frames, Revolvable, hereinafter abolished.

In Division XXI, class 242, Winding and Reeling, abolish subclasses—

14. Forms and frames—

15. Revolvable,

with their definitions, the patents formerly contained therein having been transferred to class 140, Wire Working, subclasses 92.1, Article making or forming, Forms and frames, and 92.2, Article making or forming, Forms and frames, Revolvable, hereinafter established.

In same division, same class, establish the following subclasses and definitions:

Reeling and unreeling—

Reels—

84.1. Fishing-rod type—

84.5. Brake and drag—

84.6. Clicker,

84.4. Line traverser,

84.7. Releaser,

84.2. Signal,

84.3. Spring-operated.

84.1. **REELING AND UNREELING, REELS, FISHING-ROD TYPE.** Small reels adapted for use upon fishing rods, usually comprising a reel frame or support, a reel, and operating mechanism.

Search Class—

43—FISHING AND TRAPPING, subclasses 16, Fishing, Rods, for rod structure *per se*; 35, Fishing, for apparatus specific to fishing involving more than rods and reels; 36, Fishing, Rods, Reel section, for specific rod structure involving a separable or integral section modified to inclose, to support, or to operate the reel, and 37, Fishing, Rods, Reel mounts, for saddles, seats, clamps, ferrules, etc., adapted to mount the reel upon the rod.

84.2. **REELING AND UNREELING, REELS, FISHING-ROD TYPE, SIGNAL.** Fishing-rod reels provided with means for producing a signal upon a movement of the reel, as in unwinding, mostly bell or other suitable alarm mechanism operated by the reel.

Search Classes—

242—WINDING AND REELING, subclasses 84.6, Reeling and unreeling, Reels, Fishing-rod type, Brake and drag, Clicker, for drags producing a series of clicks upon the line, constituting an audible alarm, but primarily a drag or brake, and 148, Tension devices, Alarms and indicators, for alarms and indicators operated by tension devices and not including reel structure or reel operating mechanism.

43—FISHING AND TRAPPING, subclass 31, Fishing, Hooks, Spring-actuated, for signals operated by fish pulling upon the line and not including reel structure or reel operating mechanism unless in combination with specific rod structure.

84.3. **REELING AND UNREELING, REELS, FISHING-ROD TYPE, SPRING-OPERATED.** Fishing-rod reels provided with coil-spring or other spring-actuated mechanism for operating the reel in either winding or unwinding.

Search Classes—

242—WINDING AND REELING, subclass 98, Reeling and unreeling, Reels, Carriers, Hand or body, Spring-drum article-holders, and appropriate subclasses under subclass 107, Reeling and unreeling, Reels, Spring-drum type, for spring-operated reels of general application.

43—FISHING AND TRAPPING, subclass 36, Fishing, Rods, Reel section, for spring-operated reels involving the structure of the rod.

248—SUPPORTS, subclasses 9, Adjustable, Vertical, Spring, and 10, Adjustable, Vertical, Spring, Electric, for spring and winding features not limited to winding reels.

84.4. **REELING AND UNREELING, REELS, FISHING-ROD TYPE, LINE TRAVERSER.** Fishing-rod reels provided with means for laying the line upon the reel in layers by traverse movement.

Search Class—

242—WINDING AND REELING, subclass 158, Guides, Traverse mechanism, for traverse or line laying mechanism of general application to any type of reel or winding drum.

84.5. **REELING AND UNREELING, REELS, FISHING-ROD TYPE, BRAKE AND DRAG.** Devices for retarding the unwinding movement of the reel, usually in combination with reel structure.

Search Classes—

242—WINDING AND REELING, subclasses 84.3, Reeling and unreeling, Reels, Fishing-rod type, Spring-operated, for brakes and drags in combination with spring-operated reels; 84.6, Reeling and unreeling, Reels, Fishing-rod type, Brake and drag, Clicker, for drags of the clicker or ratchet and pawl type or for brakes and drags in combination with clickers; 99, Reeling and unreeling, Reels, Carriers, Brakes, and 156, Tension devices, Brakes, for drum and reel brakes in combination with the winding element.

43—FISHING AND TRAPPING, subclass 36, Fishing, Rods, Reel section, for brakes combined with reels embodied in or upon rod sections or involving structure specific to rods.

140—WIRE WORKING, subclass 136, Tension devices, Friction roller, for wheel, drum or reel brakes for wire winding elements.

84.6. **REELING AND UNREELING, REELS, FISHING-ROD TYPE, BRAKE AND DRAG, CLICKER.** All fishing-rod reels provided with drags of the clicker or ratchet and pawl structure, with or without brakes or drags of other types.

84.7. **REELING AND UNREELING, REELS, FISHING-ROD TYPE, RELEASER.** Fishing-rod reels provided with means for connecting or disconnecting the winding or operating mechanism and including clutches, releasable handles, cranks, etc.

Search Classes—

242—WINDING AND REELING, subclass 84.3, Reeling and unreeling, Reels, Fishing-rod type, Spring-operated, for releaser reels of spring-operated type.

43—FISHING AND TRAPPING, subclass 37, Fishing, Rods, Reel mounts, for reel supports adapted to fishing rods.

74—MACHINE ELEMENTS, subclasses 5, Cranks and levers; 33, Cranks and levers, Handles; 38, Cranks and levers, Cranks and wrist-pins, and 39, Cranks and levers, Hand-levers, for cranks, handles, and levers of similar structure of general application, and 7, Gearing, for gearing involving releasing or clutch mechanism.

192—CLUTCHES, appropriate subclasses, for specific clutches.

In Division XXXVIII, class 43, Fishing and Trapping, abolish subclasses—

Fishing—

15. Reels—

33. Spring-operated,

the patents formerly contained therein having been placed in class 43, Fishing and Trapping, subclasses 35, Fishing; 36, Fishing, Rods, Reel section, and 37, Fishing, Rods, Reel mounts, hereinafter established, and class 242, Winding and Reeling, appropriate subclasses under subclass 84.1, Reeling and unreeling, Reels, Fishing-rod type hereinafter established.

In same division, same class, establish subclasses—

Fishing—

Rods—

36. Reel section,

37. Reel mounts,

and give to existing subclass title, Fishing, the number 35.

The patents placed in these subclasses have been taken from class 43, Fishing and Trapping, subclasses 15, Fishing, Reels, and 33, Fishing, Reels, Spring-operated, hereinafter abolished.

EDWARD B. MOORE,
Commissioner.

Changes in Classification.

(ORDER NO. 2,042.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 10, 1913.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In Division VI, class 106, Plastic Compositions, establish the following subclass and definition:

5.5. Inking roller type.

5.5. INKING ROLLER TYPE. Compositions forming a yielding uniform surface for the mere mechanical transfer of liquids, as in the inking of printing surfaces or in printing.

Search Class—

101—PRINTING, especially subclasses under 'Surfaces,' for compositions, sometimes comprising coloring matter or designed to absorb it locally, for use in the applying of figures to materials.

The patents in the above subclass are taken from class 101, Printing, subclass 77, Inking apparatus, Rollers, Compositions, herein after abolished, and subclass 163, Surfaces, Elastic.

In same division, class 134, Liquid Coating Compositions, establish the following subclass and definition:

17.5. Puncture healing.

17.5. PUNCTURE HEALING. Compositions designed to be applied to stop leaks under the action of fluid pressure.
Note.—Includes mainly compositions designed to close punctures in tires.

The patents in the above subclass are taken from class 152, Resilient Tires and Wheels, subclass 25, Tires, Repairing, Healing compounds, hereinafter abolished.

In Division XVII, class 101, Printing, abolish subclass—

Inking apparatus—

Rollers—

77. Compositions,

the patents therein having been placed in class 106, Plastic Compositions, subclass 5.5, Inking roller type, hereinbefore established.

In Division XXXIX, class 137, Water Distribution, establish the following subclasses, the patents therein being taken from subclass 11, Fountains, in the same class:

Fountains—

109. Bubble-cup,

107. Ornamental—

108. Illuminated.

Nozzles—

110. Bubble-cup.

In Division XLI, class 152, Resilient Tires and Wheels, abolish subclass—

Tires—

Repairing—

25. Healing compounds,

most of the patents therein being placed in class 134, Liquid Coating Compositions, subclass 17.5, Puncture healing, hereinbefore established.

In connection with the establishment of class 106, Plastic Compositions, subclass 5.5, Inking roller type, the following changes in definitions are hereby directed in class 106:

In the main class definition, lines 8 and 9, cancel the words "inking rollers."

In subclass 23, Artificial rubber, add the following note:

Search Class—

106—PLASTIC COMPOSITIONS, subclass 5.5, Inking roller type, for compositions designed for inking rollers or the like and often of rubber-like consistency.

In subclass 39, Gelatinous and gummy, in the first search note, change the word "subclass" to "subclasses" and add immediately thereafter:

5.5, Inking roller type, for compositions designed for use in inking rollers and often comprising glue, and.

ERRATUM.

The following change in the Manual of Classification, as revised to January 1, 1912, is hereby directed:

On page 49, class 88, Optics, before the subclass "Astronomical and surveying instruments," at the top of the first column, insert the number 2.

EDWARD B. MOORE,
Commissioner.

Changes in Classification.

(ORDER NO. 2,044.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 21, 1913.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In Division VII, class 88, Optics, change the title of subclass 19, Motion picture apparatus, Picture-leaf, to read:

Motion picture apparatus—

19. Book-leaf type,

and substitute for the existing definition the following:

19. MOTION PICTURE APPARATUS, BOOK-LEAF TYPE.

Motion picture apparatus in which the picture vehicle consists of a series of picture leaves or plates which are attached together or to a common support by substantially one edge, similarly to a conventional book, so as to be properly exposed to view by successively turning the leaves.

In same division, same class, establish the following subclasses and definitions:

Motion picture apparatus—

16.4. Color,

16.2. Combined with sound

producers,

16.6. Multiplex,

16.8. Optical rectifiers,

Picture-strip—

Intermittent-feed—

18.6. Film-beater type,

18.4. Intermittent-grip

type—

18.5. Rotary,

18.2. Intermittently-

rotated feed-

drum—

18.3. Geneva-gear type.

16.2. MOTION PICTURE APPARATUS, COMBINED WITH

SOUND PRODUCERS. Motion picture apparatus com-

bined with or specialized for use with sound recording and

producing means.

Note.—Combined motion picture apparatus and talking machines

or other acoustical accompanying instruments require syn-

chronizing or other mechanism to cause or enable the two

pieces of mechanism to function in proper time relation.

Therefore compare classes 58, HOROLOGY, subclass 2, Clocks,

and appropriate subclasses thereunder; 74, MACHINE ELE-

MENTS, subclasses 7, Gearing, and 13, Machine-brakes, and

subclasses thereunder; 84, MUSIC, subclass 193, Automatic in-

struments, Orchestrons, and subclasses thereunder; 116, SIG-

NALS, subclasses 31, Indicators, and 49, Indicators, Rotary;

121, STEAM ENGINES, subclass 111, Speed-governors; 123, IN-

TERNAL COMBUSTION ENGINES, subclasses 97, Speed-regula-

tors, and 143, Igniters; 161, TIME CONTROLLING MECHANISM,

and 178, TELEGRAPHY, subclasses 46, Telegraphs, Automatic;

51, Telegraphs, Multiplex, and 54, Telegraphs, Printing.

Search Classes—

40—CARD, PICTURE, AND SIGN EXHIBITING, subclass 28, Change-

able exhibitors, and subclasses thereunder.

172—ELECTRICITY, MOTIVE POWER, subclass 239, Transmission

of power, Direct.

16.4. MOTION PICTURE APPARATUS, COLOR. Motion picture

apparatus adapted for taking and exhibiting of pictures

wholly or partly in natural color.

Search Class—

95—PHOTOGRAPHY, subclasses 2, Color, and 51, Screens.

16.6. MOTION PICTURE APPARATUS, MULTIPLEX. Motion

picture apparatus that involve actually or substantially

two or more picture series of the same scene, the individual

pictures of each series being taken or projected onto the same

position on the screen, in alternate or staggered relation with

respect to the individual pictures of the other series. These

devices usually comprise two or more associated taking or pro-

jecting structures, the individual pictures being taken in over-

lapping time periods and correspondingly projected in super-

posed relation on the screen, the different series being usually

on different films or in parallel or linear relation on the same

film.

16.8. MOTION PICTURE APPARATUS, OPTICAL RECTI-

FIERS. Motion picture apparatus having optical means,

usually moving reflectors or refractors, for so diverting the

light rays from a scene that each of the series of images is held

substantially at the same location on a moving sensitive pic-

ture film or vehicle during the period it is in position for ex-

posure, and, conversely, for so diverting the light rays from a

moving film that the projected image of each picture is held

substantially stationary on the screen while in the field of

projection. Such devices usually involve films which are

moved at constant speed.

Motion picture appara-

tus—

Picture-strip—

18.7. Non-rewinding,

18.8. Rotary picture-disk,

19.3. Shutters—

19.4. Speed-controlled,

19.1. Unconnected picture-

plates.

18.2. MOTION PICTURE APPARATUS, PICTURE-STRIP, INTERMITTENT-FEED, INTERMITTENTLY-ROTATED FEED-DRUM. Devices in which the picture-strip feed is produced by intermittently rotated friction drums, sprocket-wheels, and the like, which are constantly in engagement with the strip.

18.3. MOTION PICTURE APPARATUS, PICTURE-STRIP, INTERMITTENT-FEED, INTERMITTENTLY-ROTATED FEED-DRUM, GENEVA-GEAR TYPE. Devices in which the intermittent rotation of the strip-feeding drum is produced by a conventional or modified Geneva gear or by any device in which a member rotating on one shaft intermittently rotates a member on a second parallel shaft.

18.4. MOTION PICTURE APPARATUS, PICTURE-STRIP, INTERMITTENT-FEED, INTERMITTENT-GRIP TYPE. Devices wherein the intermittent feed of a picture strip is produced by a mechanism which grips or positively engages the strip, moves it along, releases it, and moves back to engage a succeeding portion of it.

18.5. MOTION PICTURE APPARATUS, PICTURE-STRIP, INTERMITTENT-FEED, INTERMITTENT-GRIP TYPE, ROTARY. Picture-strip feeding devices in which an intermittently acting strip-gripping member operates by rotation.

18.6. MOTION PICTURE APPARATUS, PICTURE-STRIP, INTERMITTENT-FEED, FILM-BEATER TYPE. Devices in which the intermittent feed of a picture strip is produced by the so-called "film-beater" device, which comprises a member, usually a roller mounted on a cyclically moving device, that bears against but does not positively engage the film and causes a loop therein between the light aperture and a take-up feed-drum to increase and diminish periodically for each individual picture.

18.7. MOTION PICTURE APPARATUS, PICTURE-STRIP, NON-REWINDING. Motion picture apparatus that provide for the repeated exhibition of the pictures on a strip in the same order or sequence without rewinding. The strips are usually either passed over a series of rollers in a single layer or reeled on or off the inside of a spiral coil.

18.8. MOTION PICTURE APPARATUS, ROTARY PICTURE, DISK. Motion picture apparatus in which the pictures are arranged on the face of a disk—usually in a spiral or in concentric circles—and which involve the rotation of the disk in order to bring the successive pictures into the field of projection.

19.1. MOTION PICTURE APPARATUS, UNCONNECTED PICTURE-PLATES. Motion picture apparatus in which the individual pictures of the picture-series are on separate plates or leaves which are not connected together nor attached to a common support.

Note.—Compare class 211, STORE FURNITURE, subclass 8, Cabinets, Delivering.

Search Classes—

88—OPTICS, subclasses 28, Projecting apparatus, Magic lanterns, View-changing devices, and 31, Stereoscopes, View-changing.
40—CARD, PICTURE, AND SIGN EXHIBITING, subclass 28, Changeable exhibitors, and appropriate subclasses thereunder.
95—PHOTOGRAPHY, subclass 36, Cameras, Successive plate-sections.

19.3. MOTION PICTURE APPARATUS, SHUTTERS. Devices for cutting off or restricting light which are specially adapted for motion picture apparatus.

Search Class—

95—PHOTOGRAPHY, subclasses 53, Cameras, Shutters, and 81, Screens.

19.4. MOTION PICTURE APPARATUS, SHUTTERS, SPEED-CONTROLLED. Devices whereby the shutter of a motion picture apparatus is automatically opened or closed when the speed of operation of the apparatus falls below or exceeds a certain value.

Note.—These devices are mainly for the purpose of preventing the picture film catching fire from the heat of the projecting light source when the rate of feed of the film falls below a certain value.

Note.—Compare classes 74, MACHINE ELEMENTS, subclass 45, Machine-brakes, Centrifugal speed-regulators; 121, STEAM ENGINES, subclass 111, Speed-governors; 123, INTERNAL COMBUSTION ENGINES, subclass 97, Speed-regulators; 175, ELECTRICITY, GENERAL APPLICATIONS, subclass 310, Switches, Automatic, Centrifugal, and 236, DAMPERS, AUTOMATIC.

In connection with the above the following changes in the definitions of class 88, Optics, are hereby directed:

In subclass 16, Motion picture apparatus, cancel the existing search notes and add to the definition the following:

Includes also the combination of means for recording and producing such other effects (*e. g.*, sound) as naturally or artificially accompany or correspond to the pictures which are taken or exhibited.

Note.—Devices specially adapted for apparatus using a picture-strip for "framing" or bringing the individual pictures and light aperture or "gate" into registry and devices for intermittently gripping the film for holding it stationary during each exposure or projection are classified under subclass 18, Motion picture apparatus, Picture-strip, Intermittent-feed. Corresponding devices specially adapted for other types of picture-vehicles are correspondingly classified under the type of apparatus involving such picture-vehicle. Devices for

exerting a substantially constant tension on a picture strip, such as tension-gates, are classified under subclass 17, Motion picture apparatus, Picture-strip. Other tension devices are correspondingly classified. Fire-prevention shutters and screens which are of general application in motion picture apparatus are classified under subclass 19.3, Motion picture apparatus, Shutters, or 19.4, Motion picture apparatus, Shutters, Speed-controlled. Other fire-prevention devices in this class are classified under the type of apparatus for which they are specially adapted.

Note.—Film-repairing devices will be found in class 154, LAMINATED FABRIC AND ANALOGOUS MANUFACTURES, subclass 42, Adhering seam-forming.

Note.—Compare classes 88, OPTICS, subclasses 24, Projecting apparatus; 26, Projecting apparatus, Magic-lanterns, and subclasses thereunder, and 29, Stereoscopes, and subclasses thereunder; 40, CARD, PICTURE, AND SIGN EXHIBITING, especially subclass 28, Changeable exhibitors, and subclasses thereunder, and 211, STORE FURNITURE, subclass 11, Display-racks, and subclasses thereunder.

In subclass 17, Motion picture apparatus, Picture-strip, add to the definition the following:

Note.—Compare classes 74, MACHINE ELEMENTS, subclass 51, Gearing, Belt, Guides; 101, PRINTING; 197, TYPEWRITING MACHINES, subclasses 82, Feed mechanism; 114, Line-spacing; 127, Paper-feeding, and 151, Ribbon mechanism; 206, SPECIAL RECEPTACLES AND PACKAGES, subclass 59, Packages, Rolls and reels; 211, STORE FURNITURE, subclasses 14, Display racks, and 29, Serving apparatus, and appropriate subclasses thereunder, and 242, WINDING AND REELING, especially subclass 55, Reeling and unreeling, Fabrics, and subclasses thereunder.

In subclass 18, Motion picture apparatus, Picture-strip, Intermittent-feed, add to the definition the following:

Note.—Compare classes 74, MACHINE ELEMENTS, subclasses 7, Gearing; 14, Mechanical movements, and 53, Intermittent-grip devices; 112, SEWING MACHINES, subclass 8, Feeding, and 185, MOTORS, subclass 37, Spring.

EDWARD B. MOORE,
Commissioner.

Changes in Classification.

(ORDER NO. 2,051.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 16, 1915.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In Division III, class 204, Electrochemistry, establish subclass—

Electrodes—

65. Carbon,

most of the patents therein being taken from subclass 50, Batteries, Cathodes, in the same class.

In Division XX, class 16, Builders' Hardware, change the title of subclass 153, Handles, Coffin, Braces, to read—

Handles—

153. Braces.

EDWARD B. MOORE,
Commissioner.

Changes in Classification.

(ORDER NO. 2,052.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 17, 1915.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In Division IV, class 189, Metallic Building Structures, change the title of subclass 23, Electric-wire supports, Telegraph-poles, to read:

23. Poles and posts.

In the title of subclass 30 thereunder change the word "Augers" to read "Auger," and abolish the definitions now existing for subclass 23 and the subclasses thereunder and establish in lieu thereof the following definitions:

23. POLES AND POSTS. Metallic poles and posts and metallic parts for use with poles and posts generally.

Search Classes—

68—LAUNDRY, subclass 12, Clothes-line fasteners.
119—ANIMAL HUSBANDRY, subclass 122, Restraining devices, Hitching, Posts, and subclasses thereunder.
135—TENTS, CANOPIES, UMBRELLAS, AND CANES, subclass 15, Tents, Pegs, poles, and cover fasteners.
256—FENCES, subclass 49, Wire, Connections, Cross, Facing strip, for metallic posts and poles having a wooden strip upon their face for receiving staples or nails.

24. **POLES AND POSTS, COMPOUND.** Poles and posts having a main stem and one or more members bracing said stem throughout its length.
25. **POLES AND POSTS, MULTIPLE SUPPORTS.** Poles and posts comprising two or more uprights similarly placed and equally bearing the load.
26. **POLES AND POSTS, SECTIONAL.** Poles and posts composed of sections placed on top of one another, with some means of joining together the ends of two adjacent sections.
27. **POLES AND POSTS, INSULATED PARTS.** Poles and posts disclosing some form of insulation in some portion of the structure, usually to prevent the lower portion of the pole from being charged in case of accident to the conducting wire or its insulating support.
- Note.—This subclass is limited to insulators in telegraph pole structure. Insulators for conductors generally are classified in class 173, **ELECTRICITY, CONDUCTORS**, subclass 28, Insulators, and the subclasses thereunder.

Search Classes—

- 173—**ELECTRICITY, CONDUCTORS**, subclass 268, Conductors, Joints, Insulated.
- 240—**ILLUMINATION**, subclass 85, Light supports, Bracket and chandelier hangers.

28. **POLES AND POSTS, BASES.** Metallic poles and posts wherein the novelty resides in the base thereof and metallic bases for bottoms of poles and posts generally not classifiable in any of the subclasses hereunder.

Search Classes—

- 189—**METALLIC BUILDING STRUCTURES**, subclasses 21, Skeleton towers, Details, Caps and bases; 26, Poles and posts, Sectional; 32, Poles and posts, Protectors, and 42, Columns, Caps and bases.
- 47—**TREES, PLANTS, AND FLOWERS**, subclass 12, Trellises.
- 68—**LAUNDRY**, subclass 12, Clothes-line fasteners.
- 116—**SIGNALS**, subclass 12, Flagstays.
- 248—**SUPPORTS**, subclasses 37, Staff-holders, and 38, Staff-holders, Vertical.

29. **POLES AND POSTS, BASES, ANCHORED.** Bases as above defined which include some projection or equivalent which would tend to increase the resistance offered by the base to withdrawal from the ground.

30. **POLES AND POSTS, BASES, ANCHORED, AUGER.** Anchored bases as above defined where the resisting projection or equivalent takes the form of an auger or an augerlike structure for insertion into the ground.

Search Class—

- 119—**ANIMAL HUSBANDRY**, subclass 121, Restraining devices, Hitching, Picket-stakes.

31. **POLES AND POSTS, BASES, ANCHORED, EXPANDING.** Anchored bases as hereinbefore defined where the resisting projection or equivalent takes the form of an expanding device by which a larger resisting area is offered to the withdrawal than was opposed to the insertion thereof.

32. **POLES AND POSTS, PROTECTORS.** Caps and other devices for protecting the tops or other parts of metallic telegraph-poles from the effects of moisture.

- Note.—Waterproofing walls and cellars is in class 72, **MASONRY AND CONCRETE STRUCTURES**, subclasses 126, Waterproofing, Cellars, and 127, Waterproofing, Walls.

Search Classes—

- 189—**METALLIC BUILDING STRUCTURES**, subclasses 21, Skeleton towers, Details, Caps and bases; 26, Poles and posts, Sectional; 27, Poles and posts, Insulated parts; 28, Poles and posts, Bases, and 42, Columns, Caps and bases.
- 61—**HYDRAULIC ENGINEERING**, subclass 43, Piles, Protected.

33. **POLES AND POSTS, CROSS-ARMS.** Cross-arms for metallic telegraph-poles and supports for the same.

- Note.—Pins for support of insulators, brackets for the same, and devices for attachment of same to cross-arms or other bodies are classified in class 173, **ELECTRICITY, CONDUCTORS**, subclass 321, Insulators, Supports.

Search Class—

- 173—**ELECTRICITY, CONDUCTORS**, subclass 251, Supports and hangers.

In same division, same class, establish the following subclasses and definitions:

Poles and posts—

- Bases—
- Anchored—
- 30.5. Key-locked,
- 31.1. Braced—
- 32.2. Compound,
- 30.5. **POLES AND POSTS, BASES, ANCHORED, KEY-LOCKED.** Anchored bases comprising a key which after the base is set is driven through or from the same into the ground at an angle to the post, so as to anchor the post in the ground.

Search Classes—

- 189—**METALLIC BUILDING STRUCTURES**, subclass 90, Land anchors, and subclasses thereunder.
- 85—**DRIVEN, HEADED, AND SCREW-THREADED FASTENINGS**, subclass 27, Nails, spikes, and tacks, Locking devices, Transverse key.

- 31.1. **POLES AND POSTS, BRACED.** Metallic poles and posts wherein the novelty resides in the brace thereof and metallic braces for poles and posts generally not classified in any of the subclasses hereunder.

Poles and posts—

- Braced—
- 31.4. Strut,
- 31.5. Tie,
- 31.3. Truss.

- 31.2. **POLES AND POSTS, BRACED, COMPOUND.** Braces as above defined where two or more different types of braces are used to brace a single pole or post or where two or more of the same type are used, if they do not consist merely of a duplication of bracing elements.

- 31.3. **POLES AND POSTS, BRACED, TRUSS.** Braces (or a plurality thereof) as hereinbefore defined consisting of two members so joined to the pole or post and to each other that they form with the pole or post a rigid structure having some form of a simple triangle.

- 31.4. **POLES AND POSTS, BRACED, STRUT.** Braces (or a plurality thereof) as hereinbefore defined consisting of a single rigid member joined to the pole or post and resting upon or anchored in the ground, so as to prop the pole or post.

- 31.5. **POLES AND POSTS, BRACED, TIE.** Braces (or a plurality thereof) as hereinbefore defined consisting of one or more rods or strands attached to the pole or post and anchored in the ground, bracing the pole or post only when under tension.

With the changes above directed, this group of subclasses will then read as follows:

Poles and posts—	Poles and posts—
28. Bases—	Braced—
29. Anchored—	31.3. Truss,
30. Auger,	24. Compound,
31. Expanding,	33. Cross arms,
30.5. Key-locked,	27. Insulated parts,
31.1. Braced—	25. Multiple supports,
31.2. Compound,	32. Protectors,
31.4. Strut,	26. Sectional.
31.5. Tie,	

In same division, same class, establish also the following subclasses and definitions:

Structural units—**Joints and connections—**

- 36.2. Crossed rod or wire joints—
- 36.3. Removable clip,
- 36.4. Tie.

- 36.2. **STRUCTURAL UNITS, JOINTS AND CONNECTIONS, CROSSED ROD OR WIRE JOINTS.** Joints for crossed wires or metal rods formed solely by the use of a separate element in the nature of a clip, fastener, or tie. Contains only joints between single wires.

Search Class—

- 256—**FENCES**, subclass 45, Wire, Fabrics.

- 36.3. **STRUCTURAL UNITS, JOINTS AND CONNECTIONS, CROSSED ROD OR WIRE JOINTS, REMOVABLE CLIP.** Crossed rod or wire joints in which the separate joining element is removably attached to the crossed members.

- 36.4. **STRUCTURAL UNITS, JOINTS AND CONNECTIONS, CROSSED ROD OR WIRE JOINTS, TIE.** Crossed rod or wire joints in which the separate joining element is in the form of a tie wire.

Search Classes—

- 140—**WIRE WORKING**, subclasses 11, Fabric making, All wire, Stay-applying, Clip-joining, and 116, Joining wire, Tying-dies.
- 256—**FENCES**, subclass 7, Barbed, Strands, Single.

In Division XXIX, class 20, **Wooden Buildings**, abolish the following subclass, with its definition, the patents formerly contained therein having been placed in subclass 98, **Wooden columns, Caps and bases**, hereinafter established in this class:

98. Post-bases.

In same division, same class, establish the following subclasses and definitions:

Wooden columns—

98. Caps and bases.

99. Poles and posts.

98. **WOODEN COLUMNS, CAPS AND BASES.** Details of caps and bases of wooden columns, the bases generally consisting of porch irons intended to prevent the rotting of the column end.

Search Class—

- 189—**METALLIC BUILDING STRUCTURES**, subclasses 21, Skeleton towers, Details, Caps and bases; 28, Poles and posts, Bases, and 42, Columns, Caps and bases.

99. **POLES AND POSTS.** Poles and posts made of wood or of wood in combination with other materials, except such as are particularly adapted for use in a fence. This subclass is intended to receive post constructions and post parts not provided for in the subclasses of "Poles and posts," under classes 72, **MASONRY AND CONCRETE STRUCTURES**, and 189, **METALLIC BUILDING STRUCTURES**. Poles and posts particularly adapted for use in a fence will be found under the particular type of fence with which they are used or under the appropriate subclass of "Connections," in class 256, **FENCES**, wherein the novelty resides.

Search Classes—

- 119—**ANIMAL HUSBANDRY**, subclass 125, Restraining devices, Hitching, Posts, Disappearing, for disappearing posts.

68—LAUNDRY, subclass 12, Clothes-line fasteners, and 135, TENTS, CANOPIES, UMBRELLAS, AND CANES, subclass 15, Tents, Pegs, poles, and cover fastenings, for telescoping poles.

In Division XXXIII, class 72, Masonry and Concrete Structures, abolish the following subclass and definition:

Walls—

34. Fences.

In same division, same class, change the titles of subclasses—

82. Posts—

83. Inseparable bases,

84. Separable bases.

85. Telegraph-poles,

to read:

82. Poles and posts—

83. With bases—

84. Detachable,

85. Reinforced,

abolish the existing definitions, and establish in lieu thereof the following definitions:

82. POLES AND POSTS. Poles and posts made of stone or plastic, with or without metal elements, and parts made of like materials for use with poles or posts generally.

Search Class—

72—MASONRY AND CONCRETE STRUCTURES, subclasses 72, Columns, and appropriate subclasses thereunder, and 81, Foundations, Concrete piles.

83. POLES AND POSTS, WITH BASES. Combinations of poles and posts with bases and bases *per se* formed of plastic material or stone.

84. POLES AND POSTS, WITH BASES, DETACHABLE. Poles and posts with bases and bases *per se* formed of plastic material or stone where the base is so attached to the pole or post as to be more or less readily separated therefrom.

85. POLES AND POSTS, REINFORCED. Poles and posts formed of concrete or other plastic with internal reinforcing elements of metal or other material.

Search Classes—

72—MASONRY AND CONCRETE STRUCTURES, subclasses 76, Columns, Metal reinforced, and 81, Foundations, Concrete piles.

256—FENCES, subclass 51, Wire, Connections, Cross, Plastic, Reinforced.

In the definitions of class 72, Masonry and Concrete Structures, in subclass 101, Bonding and tying, add to the definition the following search note:

Search Class—

256—FENCES, subclass 50, Wire, Connections, Cross, Plastic, and in subclass 105, Bonding and tying, Fixing-blocks, add to the definition after the existing search note the following:

256—FENCES, subclass 51, Wire, Connections, Cross, Plastic, Reinforced.

In Division XXXV, class 24, Buckles, Buttons, Clasps, Etc., establish the following subclasses and definitions:

Strap-tighteners—

71.1. Midline—

71.2. Winders—

71.3. One piece.

71.1. STRAP-TIGHTENERS, MIDLINE. Devices adapted to be attached to a wire or other line at a point in its length and to take up slack, remaining a permanent part of the line. Combinations of said device with tools for use particularly therewith.

71.2. STRAP-TIGHTENERS, MIDLINE, WINDERS. Midline strap tighteners which wind in tightening the line.

71.3. STRAP-TIGHTENERS, MIDLINE, WINDERS, ONE PIECE. Winders made in one piece.

In the definitions of class 24, Buckles, Buttons, Clasps, Etc., in subclass 115, Cord and rope holders, in line 2, after the word "rope" add the word "wire" and cancel the third search note to class 39, Fences, and in subclass 123, Cord and rope holders, Couplings and sockets, in line 3, before the word "rope" cancel the word "and" and after the word "rope" add the words "and wire."

In Division I, class 39, fences, change the title to read:

CLASS 39.—FENCES, GATES,

and abolish the following subclasses:

Fences—

1. Barbed—
70. Linked,
102. Ribbon,
71. Visible,
64. Cat-guards,
4. Flood,
6. Iron—
104. Panel,
9. Wire—
72. Fabric,
12. Fasteners—
76. Clamps,
105. Hooks,
106. Loops,
107. Sleeves,
108. Joints,
109. Panel,
73. Picket,
74. Stays—
78. Linked,
79. Lock-plates,
110. Lock-rod,
111. Tied,
112. Wire,
75. Strands,

In same division, same class, establish subclass—

Gates—

4. Flood.

In same division establish class 256, Fences, with the following subclasses and definitions:

CLASS 256.—FENCES.

Subclasses.

- | | |
|--|------------------------|
| 2. Barbed— | 66. Wood— |
| 5. Fabrics, | 80. Panel— |
| 3. Guarded— | 83. Suspended, |
| 4. Visible, | 84. Worm |
| 6. Strands— | 81. Picket— |
| 9. Sectional, | 85. Panel, |
| 7. Single— | 82. Tied. |
| 8. Integral barb. | Posts— |
| 19. Earth, stone, plastic, and wooden. | Bases— |
| 10. Electric. | 86. Metal, |
| 13. Flood. | 88. Wood, |
| 20. Hedge. | Braces— |
| 21. Metallic— | 89. Lateral, |
| 22. Picket. | 90. Longitudinal— |
| 1. Miscellaneous. | 131. Strut, |
| 24. Panel— | 132. Tie, |
| 27. Angle— | 133. Truss, |
| 28. Tied, | 67. Metal— |
| 31. Braced, | 134. Anchors, |
| 25. Inclosure, | 135. Compound, |
| 26. Hinged, | 136. Doubled, |
| 29. Tied— | 137. Flanged, |
| 30. Braced. | 138. Flat, |
| 73. Panels. | 139. Folded, |
| 59. Rail— | 69. Wood. |
| 60. Angle— | |
| 61. Tied, | Rail— |
| 64. Braced, | 62. Tied— |
| 65. Connections— | 63. Braced. |
| 67. Adjustable, | 23. Suspended. |
| 68. Clamp— | 11. Top guarded— |
| 69. Screw, | 12. Unstable. |
| 70. Wedge, | 14. Track guard— |
| 72. No clip, | 17. Bar— |
| 66. Plastic, | 18. Pronged, |
| 71. Tie, | 15. Rocking, |
| | 16. Rotary. |
| | 32. Wire— |
| | 33. All wire, |
| | 35. Braced— |
| | 36. Trussed, |
| | 47. Connections— |
| | 48. Cross— |
| | 54. Clamp— |
| | 55. Screw, |
| | 56. Wedge, |
| | 49. Facing strip, |
| | 52. Multiple, |
| | 58. No clip, |
| | 53. Non-aligned slots, |
| | 50. Plastic— |
| | 51. Reinforced, |
| | 57. Tie, |
| | 45. Fabrics, |
| | 34. Picket, |
| | 46. Strands, |
| | 37. Stretcher— |
| | 38. Gravity, |
| | 39. Spring, |
| | 40. Winder— |
| | 42. Bracket, |
| | 43. Internal, |
| | 44. Lateral, |
| | 41. Multiple. |

CLASS 256.—FENCES.

DEFINITIONS.

Class.

This class includes that type of building structures commonly designated "fences" and characterized by a relatively low, generally openwork, structure adapted to serve the purposes of a barrier.

Note.—That movable portion of a fence commonly known as a "gate" and characterized by a normally open and closed position is classified in class 39, FENCES, GATES. Where the invention relates to a panel *per se* of general application, although forming part of a gate, it is classified under subclass 73, Panels, in this class.

Those fences in which a part breaks, gives way, or separates under abnormal conditions are classified herein with the type of fence to which the invention is applied.

Posts described for use in fences, but which are of more general application, are classified under the more general appropriate building structure classes. Posts are included herein only when specially adapted for a fence and are classified with the type of fence to which they are adapted.

Connections between parts of a fence are included herein and are classified with the type of fence involved. When the joint or connector is wholly metallic and is of general application, it is classified in class 189, METALLIC BUILDING STRUCTURES, subclass 36, Structural units, joints and connections, and subclasses thereunder.

Masonry walls of general application, characterized in general by the fact that they are not structurally limited to a definite height, are classified in class 72, MASONRY AND CONCRETE STRUCTURES. Masonry fences are classified in this class, in subclass 19, Earth, stone, plastic, and wooden.

Earthwork barriers are classified in class 61, HYDRAULIC ENGINEERING. The combination of a fence structure as above limited with earthwork is classified herein under subclass 19, Earth, stone, plastic, and wooden.

The term "wire" as used herein includes not only metallic but also any non-metallic rope, cord, or strand.

The term "structural" as used herein applies to any relatively rigid slat or bar member used as an element of a fence.

Subclasses.

1. MISCELLANEOUS. Fence constructions and accessories peculiar thereto not specifically provided for elsewhere.
2. BARBED. Fences provided with spurs, points, or barbs so arranged as to discourage the violent passage of animals through them.
3. BARBED, GUARDED. Barbed fences having guards to protect animals from injury.
4. BARBED, GUARDED, VISIBLE. Barbed fences having guards comprising members serving as a warning of the presence of barbs.
5. BARBED, FABRICS. Openwork or meshed stock provided with barbs, whether formed of relatively rigid slats or bars or of wire or of wire combined with rigid slats or bars.
Note.—The presence of barbs in a wire fabric is deemed to specialize the fabric for use in a fence. Hence some wire fabrics are found in this subclass which would be classified in class 245, WIRE FABRICS AND STRUCTURE, if they were not provided with barbs.
6. BARBED, STRANDS. Strands *per se* provided with a barb.
Note.—Excludes top guard rails, although provided with barbs, which are to be found in this class, subclass 11, Top guarded.
7. BARBED, STRANDS, SINGLE. Fence strands having a barb capable of attachment to a single strand.
Search Class—
256—FENCES, subclass 6, Barbed, Strands, for barbs specialized for attachment to strands made up of two or more wires.
8. BARBED, STRANDS, SINGLE, INTEGRAL BARB. Single fence strands provided with integral barbs.
Search Class—
256—FENCES, subclass 11, Top guarded.
9. BARBED, STRANDS, SECTIONAL. Wire fence strands made up of sections or links joined end to end and provided with barbs.
10. ELECTRIC. Fences having one or more parts charged with electricity, whereby shock will be imparted to an animal coming into contact therewith.
11. TOP GUARDED. Fences having special provision to prevent or hinder creatures from traveling or remaining upon the top of the fence.
12. TOP GUARDED, UNSTABLE. Fences wherein the top guard has an unstable or movable portion.
Search Class—
256—FENCES, subclasses 1, Miscellaneous, for steeplechase fences provided with yielding means upon the top rail, and 16, Track guard, Rotary.

CLASS 256—Continued.

13. FLOOD. Devices for use on shores or in stream beds designed to prevent animals from passing, but providing for the more or less free passage of the water and bodies held in suspension therein.

Note.—Panels mounted for movement under the influence of a swollen stream are to be found under class 39, FENCES, GATES.

14. TRACK GUARD. Devices for use upon railroads designed to prevent animals from passing along the tracks and incapable of use as a gate to permit the passage of the animal.

Note.—Treadle operated gates for this purpose are classified in class 39, FENCES, GATES.

15. TRACK GUARD, ROCKING. Track guards that consist of a pivoted member or a series of them adapted to rock under pressure.

16. TRACK GUARD, ROTARY. Track guards embodying a series of rotary members.

17. TRACK GUARD, BAR. Track guards embodying a series of bars spaced apart to form a grating.

18. TRACK GUARD, BAR, PRONGED. Track guards comprising bars provided with a series of prongs more or less sharp.

19. EARTH, STONE, PLASTIC, AND WOODEN. Fences made wholly or partly of such materials as earth, stone, plastic, or wood where the material of which they are made, as well as the form of the fence, is of consequence.

20. HEDGE. Fences formed of growing plants used alone or in connection with wire to form the fence.

21. METALLIC. Fences made wholly or mostly of metal other than wire where the material is of consequence or where the shape of parts is such as to preclude their being made of other material.

Search Classes—

256—FENCES, appropriate subclasses under subclasses 47, Wire, Connections, and 65, Rail, Connections, for joints between fence members.

189—METALLIC BUILDING STRUCTURES, subclasses 9, Buildings, Jails, Gratings, and 36, Structural units, joints and connections, for joints between two metallic members.

22. METALLIC, PICKET. Fences composed of longitudinal metallic rails and upright metallic members where the upright members serve to increase the effectiveness of the fence as a barrier and not merely to strengthen, brace, or space apart the rails.

Search Class—

256—FENCES, subclass 34, Wire, Picket.

23. SUSPENDED. Fences wherein portions of the fence are hung or suspended between posts or from rails or strands running from post to post.

Search Class—

39—FENCES, GATES, subclass 4, Gates, Flood.

24. PANEL. Fences made up of panels.

Note.—Fence panels *per se* are classified in this class, subclass 73, Panels. Clips and clamps of general application but adapted to secure panels to each other, etc., are classified in accordance with their type—e. g., as splices and joints in class 20, WOODEN BUILDINGS, subclass 92, Splices and joints; structural units in class 189, METALLIC BUILDING STRUCTURES, subclass 34, Structural units, and subclasses thereunder; clasps, etc., in class 24, BUCKLES, BUTTONS, CLASPS, ETC.

Search Class—

256—FENCES, subclass 23, Suspended.

25. PANEL, INCLOSURE. Inclosed structures made of fence panels, generally in the nature of a pen for children, adapted to be folded and stored away.

Search Classes—

46—GAMES AND TOYS, subclass 73, Arenas.

119—ANIMAL HUSBANDRY, subclass 20, Confining and housing devices, Pens and racks.

26. PANEL, HINGED. Fences having panels hingedly connected. Hence adjacent panel units are capable of lying in the same or intersecting planes.

27. PANEL, ANGLE. Panel fences (except inclosure) in which two adjacent panels are capable of attachment so as to stand in intersecting planes.

28. PANEL, ANGLE, TIED. Angle fences wherein the panels are tied together by a wire running the length of several panels or the panel ends are bolted or wired together or a separate element is used to lock or tie adjacent panels together.

29. PANEL, TIED. Panel fences wherein the panels extend in the same general direction (right line) and are tied together by a wire running the length of a plurality of panels or where the panel ends are bolted or wired together or where a separate element is used to lock or tie adjacent panels together.

CLASS 256—Continued.

30. PANEL, TIED, BRACED. Tied right line panel fences wherein the panels or fence as a whole are braced in addition or wherein the panels or fence are tied and braced by the same means.
31. PANEL, BRACED. Right line fences other than tied panel fences comprising combinations of panels with braced posts or separate brace members and braced posts or like parts particularly adapted to receive and support fence panels.
32. WIRE. Fences made wholly or partially of wire (except fence panels) and elements and combinations of elements used as parts of wire fences not otherwise provided for. This type of fence is characterized by the presence of strands of wire connected to and spanning post members.
- Search Class—**
256—FENCES, subclass 23, Suspended, for spanning strands supporting panel members.
33. WIRE, ALL WIRE. Fences composed entirely of wire.
- Search Class—**
47—TREES, PLANTS, AND FLOWERS, subclass 12, Trellises.
34. WIRE, PICKET. Woven fences composed of longitudinal strands and upright members where the upright members serve to increase the effectiveness of the fence as a barrier and not merely to strengthen, brace, or space apart the strands.
- Search Classes—**
256—FENCES, subclasses 22, Metallic, Picket, and 35, Wire, Braced.
245—WIRE FABRICS AND STRUCTURE, subclass 11, Fabrics, Slat-and-wire.
35. WIRE, BRACED. Constructions particularly adapted for the bracing of wire fences. Braced posts and braces or stays generally to strengthen, reinforce, or space apart the strands of a wire fence. Combinations of a plurality of fence posts with brace members connecting so as to brace each other.
- Search Class—**
256—FENCES, subclass 22, Metallic, Picket, and 34, Wire, Picket.
36. WIRE, BRACED, TRUSSED. Braced fences wherein the wire strands are provided with a diagonal bracing member or some of the strands are deflected from their true horizontal course to brace the fence after the manner of a truss.
37. WIRE, STRETCHER. Miscellaneous combinations of wire fences with stretching devices, which form permanent parts of the fence, also stretching devices *per se* where they form a permanent part of the fence and are provided with details particularly adapting them for use in a fence.
- Note.**—Devices which do not form a permanent part of the fence are excluded from this and the subclasses hereunder, as well as those stretchers and tighteners which are of general application, although shown as a permanent part of the fence.
- Search Class—**
84—Music, subclasses 67, Piano, Tuning-pins, and subclasses thereunder, and 78, Violin, Tuning pegs.
38. WIRE, STRETCHER, GRAVITY. Fence wire stretchers, including a suspended weight.
39. WIRE, STRETCHER, SPRING. Fence wire stretchers that employ the power of a spring to accomplish the stretching.
- Note.**—Compare classes 24, BUCKLES, BUTTONS, CLASPS, ETC., subclass 268, Resilient connections; 54, HARNESS, subclasses 48, Stirrups, Elastic, and 86, Elastic connections; 74, MACHINE ELEMENTS, subclass 72, Elastic tension devices, and subclasses thereunder.
40. WIRE, STRETCHER, WINDER. Fence wire stretchers employing a member upon which the wire is wound to accomplish the stretching.
41. WIRE, STRETCHER, WINDER, MULTIPLE. Fence wire stretchers having winding elements for stretching a plurality of strands and pluralities of winding elements operating upon individual strands, but mounted upon a common spindle.
42. WIRE, STRETCHER, WINDER, BRACKET. Winding elements carried by brackets secured to or bearing against the post.
43. WIRE, STRETCHER, WINDER, INTERNAL. Winding elements mounted within the post. Hence the strand passes through the post.
44. WIRE, STRETCHER, WINDER, LATERAL. Winding elements mounted upon the post and projecting laterally therefrom. Hence the strand passes the post at the outside thereof.
45. WIRE, FABRICS. Fabrics formed wholly or partially of wire wherein the stays and strands are held together by separate ties, such as wires, lock rods, or clips.
- Note.**—Woven all wire or slat-and-wire fabrics are to be found in class 245, WIRE FABRICS AND STRUCTURE. Connections between individual wire strands and wire stays are classified in classes 189, METALLIC BUILDING STRUCTURES, subclass 36.2, Structural units, Joints and connections, Crossed rod or wire joints, and the subclasses thereunder, and 245, WIRE FABRICS AND STRUCTURE, subclass 12, Joints.
46. WIRE, STRANDS. Construction strands peculiar to fences, including circular section and ribbon strands.
- Search Classes—**
256—FENCES, subclass 6, Barbed, Strands, and the subclasses thereunder.
29—METAL WORKING, subclass 180, Metal stock.
68—LAUNDRY, subclass 3, Clothes-lines.

CLASS 256—Continued.

47. WIRE, CONNECTIONS. Connections peculiarly adapted to attach a wire fence strand to a post, pole, stay, or like upright having a structural shape.
- Note.**—Connections between individual wire strands and wire stays are classified in classes 189, METALLIC BUILDING STRUCTURES, subclass 36.2, Structural units, Joints and connections, Crossed rod or wire joints, and subclasses thereunder, and 245, WIRE FABRICS AND STRUCTURE, subclass 12, Joints.
48. WIRE, CONNECTIONS, CROSS. Connections wherein the wire strand crosses a structural upright.
- Search Classes—**
256—FENCES, subclass 63, Rail, Connections, and subclasses thereunder.
47—TREES, PLANTS, AND FLOWERS, subclass 12, Trellises.
68—LAUNDRY, subclass 12, Clothes-line fasteners.
173—ELECTRICITY, CONDUCTORS, subclass 313, Insulators, Conductor-holders, and subclasses thereunder.
49. WIRE, CONNECTIONS, CROSS, FACING STRIP. Connections wherein the fence wire strand is stapled or otherwise attached to a facing strip which is secured to or embedded in a structural upright.
- Search Classes—**
256—FENCES, subclass 65, Rail, Connections, for patents showing a rail attached to a facing strip on the upright.
72—MASONRY AND CONCRETE STRUCTURES, subclass 105, Bonding and tying, Fixing-blocks.
50. WIRE, CONNECTIONS, CROSS, PLASTIC. Connections between the wire strand and the upright requiring that the upright shall be made of some plastic material.
- Search Classes—**
256—FENCES, subclass 49, Wire, Connections, Cross, Facing strip, for patents showing facing strips upon a plastic post to which the strand is attached.
72—MASONRY AND CONCRETE STRUCTURES, subclass 105, Bonding and tying, Fixing-blocks.
51. WIRE, CONNECTIONS, CROSS, PLASTIC, REINFORCED. Connections between the reinforcing element of a reinforced plastic post and the securing means for the wire strand.
- Search Class—**
72—MASONRY AND CONCRETE STRUCTURES, subclass 85, Poles and posts, Reinforced.
52. WIRE, CONNECTIONS, CROSS, MULTIPLE. Connections of a plurality of crossing wires to a structural upright by a single member extending longitudinally of the upright.
- Search Class—**
256—FENCES, subclass 49, Wire, Connections, Cross, Facing strip, for single members embedded or otherwise longitudinally secured to a post to which a series of wires are stapled or similarly attached.
53. WIRE, CONNECTIONS, CROSS, NON-ALIGNED SLOTS. Connections between a wire strand and fence upright where the wire is held in a plurality of slots, which slots or their mouths are out of alignment, so that it is necessary to bend a portion of the strand to cause it to enter the slots.
- Search Classes—**
256—FENCES, subclasses 48, Wire, Connections, Cross, for separate members attached to uprights to receive the wire in a curved or obliquely formed slot therein or between oppositely directed hooks formed thereon, and 58, Wire, Connections, Cross, No clip, for obliquely formed slots in the upright or oppositely directed hooks struck from the material of the upright in which the wire is held.
173—ELECTRICITY, CONDUCTORS, subclasses 316, Insulators, Conductor-holders, Non-aligning slots, and 317, Insulators, Conductor-holders, Twisted slot.
54. WIRE, CONNECTIONS, CROSS, CLAMP. Connections between a wire strand and a fence upright where a clamp is employed as the connecting means.
- Search Classes—**
256—FENCES, subclass 68, Rail, Connections, Clamp.
173—ELECTRICITY, CONDUCTORS, subclass 313, Insulators, Conductor-holders.
55. WIRE, CONNECTIONS, CROSS, CLAMP, SCREW. Connections wherein the wire strand is clamped to the fence upright, in which clamp a screw is an essential element.
- Search Class—**
256—FENCES, subclass 69, Rail, Connections, Clamp, Screw.
56. WIRE, CONNECTIONS, CROSS, CLAMP, WEDGE. Connections wherein the wire strand is clamped to the fence upright, in which clamp a wedge is an essential element.
- Search Class—**
256—FENCES, subclass 70, Rail, Connections, Clamp, Wedge.
57. WIRE, CONNECTIONS, CROSS, TIE. Connections between a wire strand and a fence upright in which the strand is tied to the structural shaped upright by means of a flexible member.
- Search Classes—**
256—FENCES, subclass 71, Rail, Connections, Tie.
47—TREES, PLANTS, AND FLOWERS, subclass 12, Trellises.
173—ELECTRICITY, CONDUCTORS, subclass 313, Insulators, Conductor-holders.
189—METALLIC BUILDING STRUCTURES, subclass 36.4, Structural units, Joints and connections, Crossed rod or wire joints, Tie.

CLASS 256—Continued.

58. WIRE, CONNECTIONS, CROSS, NO CLIP. Connections between a wire strand and a fence upright which are made without the employment of connecting means other than the wire and upright.
- Search Class—**
256—FENCES, subclasses 48, Wire, Connections, Cross, and 53, Wire, Connections, Cross, Non-aligned slots.
59. RAIL. Fences composed of structural uprights and individual structural runner members or rails either permanently or removably attached to the uprights or posts in the erection of the fence. Posts particularly adapted for the reception of rails are classified in subclasses hereunder.
- Search Class—**
256—FENCES, subclass 1, Miscellaneous, for strictly tight board fences.
60. RAIL, ANGLE. Rail fences having two adjacent sections standing in intersecting planes.
61. RAIL, ANGLE, TIED. Angle fences of the rail type wherein the fence is supported by a wire running the length of several sections or where the rails are tied to the post or to each other by wire or other separate element.
62. RAIL, TIED. Rail fences (other than angle) provided with a tie wire running the length of the fence sections or having the rails tied to the posts or to each other or wherein a separate member is used to lock the sections of the fence together.
63. RAIL, TIED, BRACED. Tied rail fences (other than angle) which are braced in addition or tied and braced by the same means.
64. RAIL, BRACED. Right line rail fences (other than tied) comprising combinations of rails or runners with braced posts or like parts and braced posts or like parts specially formed to receive and support rails or runners.
- Note.—The bracing of one line post of a fence by another is classified under subclass 35, Wire, Braced, in this class.
65. RAIL, CONNECTIONS. Connections between a fence rail and a post, pole, stay, or like structural upright.
- Search Classes—**
20—WOODEN BUILDINGS, subclasses 92, Splices and joints; 94, Joist connections, and 95, Framing sockets.
189—METALLIC BUILDING STRUCTURES, subclasses 10, Buildings, Jails, Gratings, Connections, and 36, Structural units, Joints and connections, and subclasses thereunder.

CLASS 256—Continued.

66. RAIL, CONNECTIONS, PLASTIC. Connections between the rail and the upright requiring that the upright shall be made of some plastic material at the point of connection.
- Search Class—**
256—FENCES, subclass 50, Wire, Connections, Cross, Plastic.
67. RAIL, CONNECTIONS, ADJUSTABLE. Connections in which the angles between the rail and the upright may be varied.
68. RAIL, CONNECTIONS, CLAMP. Connections wherein the rail is clamped to the upright.
- Search Class—**
256—FENCES, subclass 54, Wire, Connections, Cross, Clamp.
69. RAIL, CONNECTIONS, CLAMP, SCREW. Connections in which the clamp connecting the rail and upright is characterized by a screw.
- Search Class—**
256—FENCES, subclass 55, Wire, Connections, Cross, Clamp, Screw.
70. RAIL, CONNECTIONS, CLAMP, WEDGE. Connections in which the clamp connecting the rail and upright is characterized by a wedge.
- Search Class—**
256—FENCES, subclass 56, Wire, Connections, Cross, Clamp, Wedge.
71. RAIL, CONNECTIONS, TIE. Connections in which the rail is tied to the structural shaped upright by means of a flexible tying member.
- Search Classes—**
256—FENCES, subclass 57, Wire, Connections, Cross, Tie.
189—METALLIC BUILDING STRUCTURES, subclass 36.2, Structural units, Joints and connections, Crossed rod or wire joints, and subclasses thereunder.
72. RAIL, CONNECTIONS, NO CLIP. Connections between the rail and upright which are direct—*e. g.*, having no connecting means other than the rail and upright.
73. PANELS. Unitary fence or gate structures adapted to extend between two adjacent supports and comprising generally vertical and horizontal members.

EDWARD B. MOORE,
Commissioner.

Changes in Classification.

(ORDER No. 2,055.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 4, 1913.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In Division I, class 39, Fences, Gates, abolish subclasses—

Fences—

- Wire—
- Stretchers—
- Compensators—
- Springs—
- 114. Compression,
- 116. Tension,

most of the patents formerly contained therein having been placed in class 256, Fences.

In Division XXXII, class 221, Dispensing Cans, abolish subclasses—

Filling cans—

- Jackets—
- 10. Corrugated,
- 87. Wire,
- 29. Wooden—
- 88. Closures,

the patents formerly contained therein having been placed in classes 215, Bottles and Jars; 217, Wooden Receptacles; 220, Metallic Shipping and Storing Vessels and 221, Dispensing Cans.

EDWARD B. MOORE,
Commissioner.

Changes in Classification.

(ORDER No. 2,057.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 12, 1913.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In Division VI, class 106, Plastic Compositions, establish the following subclass and definition:

7.5. Tractive-surface type.

7.5. TRACTIVE-SURFACE TYPE. Compositions to constitute a contacting surface, at least, of pulleys, drawing rolls, wheels, clutches, brakes, or the like.

Search classes—

- 106—PLASTIC COMPOSITIONS, subclass 23, Artificial rubber, for compositions alleged to be of general utility as substitutes for rubber.
- 64—JOURNAL BOXES, PULLEYS, AND SHAFTING, subclass 45, Pulleys, Non-metallic rim coverings, for composite rims, sometimes comprising plastic compositions.
- 152—RESILIENT TIRES AND WHEELS, especially subclass 13, Tires, Pneumatic, for composite tires, sometimes comprising plastic compositions.

In Division XV, class 25, Plastic Block and Earthenware Apparatus, establish the following subclass and definition:

Molds—

- Centering—
- 131.6. Wheel-mounted.
- 131.6. MOLDS, CENTERING, WHEEL-MOUNTED. Centerings having supporting wheels or the like to permit an advance, in a collapsed condition, for further use, as in the lining of a tunnel.

The patents in the above subclass have been taken from subclasses 32, Pipe machines, *in situ*, and 131.5, Molds, Centering, in the same class.

ERRATUM.

In the GAZETTE of May 27, 1913, under Classification Order No. 2,052, on page 1035, at the top of the second column, in directing the establishment of certain subclasses in class 189, Metallic Building Structures, subclass 32.2, Poles and posts, Braced, Compound, should read—

Poles and posts—

- Braced—
- 31.2. Compound.

EDWARD B. MOORE,
Commissioner.

Changes in Classification.

(ORDER No. 2,059.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 24, 1913.

The following change in the classification of inventions is hereby directed, to take effect immediately:

In Division XII, class 64, Journal Boxes, Pulleys, and Shafting, abolish subclass—

Pulleys—

- 44. Compositions for coating rims.

The patents formerly contained in this subclass have been placed in class 106, Plastic Compositions, subclass 7.5, Tractive surface type.

EDWARD B. MOORE,
Commissioner.

Changes in Classification.

(ORDER No. 2,063.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 30, 1913.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In Division II, class 100, Presses, abolish subclass—

Baling—

- Articles and attachments—
- 27. Indicators.

In Division V, class 11, Bookbinding, abolish subclass—

Books and covers—

- 26. Cutting attachments.

In Division VII, class 88, Optics, abolish the following subclasses, with their definitions:

2. Astronomical and surveying instruments—	Astronomical and surveying instruments—
9. Altitude—	8. Solar.
11. Artificial horizons,	Optometers—
10. Sextants,	21. Face-gages.
3. Distance—	61. Tripods—
6. Double observation—	62. Cane type,
7. External base,	63. Horizontal adjustments,
4. Electric,	64. Instrument-attaching devices,
5. Remote base,	65. Leveling adjustments.
12. Leveling—	66. Rods and targets.
13. Gradient	

The patents formerly contained in subclass 2, Astronomical and surveying instruments, and the subclasses thereunder, have been placed in class 33, Geometrical instruments, hereinafter established, and in class 88, Optics. The patents formerly contained in subclass 61, Tripods, and the subclasses thereunder, have been placed in subclasses with similar titles hereinafter established in class 248, Supports.

In same division, same class, establish the following subclasses and definitions:

Geometrical instruments—

- 2.2. Fiducial—
- 2.3. Single deflected image—
- 2.4. Deflection adjustment,
- 2.6. Multiple deflected image—
- 2.7. Deflection adjustment.

GEOMETRICAL INSTRUMENTS. Instruments for discovering or determining the mutual relations of points, lines, surfaces, or solids in space which depend for their operation upon the laws of light transmission and deflection.

Note.—Those geometrical instruments that depend for their operation merely upon the fact that light travels in straight lines and involve only direct sighting are classifiable in class 33, GEOMETRICAL INSTRUMENTS, subclass 46, Light-ray type, and the subclasses thereunder.

2.2. GEOMETRICAL INSTRUMENTS, FIDUCIAL. Optical instruments whereby rays of light from an object or objects forming part of the device and rays of light from an object or objects outside the device are simultaneously brought to a position convenient to the observer's eye, the rays from at least one of the objects being positively deflected, the image

formed by the rays from the object or objects forming part of the device serving as a fiducial or reference image, the relation to which of the image formed by rays from the object or objects outside the device enables the observer to determine the positional relation of the outside objects one to another or of one or more of the outside objects to the device. The fiducial member may be a spirit level, a scale of some sort, or any portion of the device serving as a sight member or point of reference. When a telescope forms part of a geometrical instrument, it is assumed to transmit rays in straight lines unless its light-deflecting characteristics form an essential part of the invention, in which case the telescope is deemed a ray deflector.

Note.—Includes such instruments as sextants, optical range-finders, surveying instruments, gun sights employing any image comparison, etc. Does not include transits, sighting levels, etc., that comprise no improvement in the optical elements and operate on the principle of line-sighting instruments.

- 2.3. GEOMETRICAL INSTRUMENTS, FIDUCIAL, SINGLE DEFLECTED IMAGE. Instruments of the fiducial type in which a single set of rays is deflected, whether by a single deflection or by a succession of deflections, into line with a set of direct rays. Subsequent deflections of all the rays do not affect this classification.
- 2.4. GEOMETRICAL INSTRUMENTS, FIDUCIAL, SINGLE DEFLECTED IMAGE, DEFLECTION ADJUSTMENT. Instruments that deflect a single set of rays and have means for adjusting the deflecting elements to control the relation of the deflected set of rays to the direct rays. They are usually provided with means to indicate such relation quantitatively.
- 2.6. GEOMETRICAL INSTRUMENTS, FIDUCIAL, MULTIPLE DEFLECTED IMAGE. Instruments having elements adapted to deflect a plurality of sets of rays independently.
- 2.7. GEOMETRICAL INSTRUMENTS, FIDUCIAL, MULTIPLE DEFLECTED IMAGE, DEFLECTION ADJUSTMENT. Instruments provided with means for adjusting one or more of the independent image deflecting means.

The patents forming the above subclasses have been taken from class 33, Drafting, hereinafter abolished; class 42, Firearms, subclass 80, Sights, and the subclasses thereunder, hereinafter abolished; class 88, Optics, subclass 2, Astronomical and surveying instruments, and the subclasses thereunder, hereinafter abolished, and class 89, Ordnance, subclass 32, Sights, hereinafter abolished.

In Division VIII, class 45, Furniture, establish subclass—
131. Drawing boards.

In same division, class 248, Supports, establish subclasses—

43. Tripods—
44. Cane type,
45. Horizontal adjustments,
46. Instrument-attaching devices,
47. Leveling adjustments.

The patents in the above subclasses have been taken from class 88, Optics, subclass 61, Tripods, and the subclasses thereunder, hereinafter abolished.

In Division XI, class 12, Boot and Shoe Making, abolish the following subclasses, with their definitions:

Upper machines—

56. Marking.
121. Patterns.
Processes—
144. Blank laying-out.

In Division XIII, class 76, Metal Tools and Implements, Making, abolish the following subclass, with its definition:

Saw making—

81. Gages.

In same division, class 82, Turning, abolish the following subclasses, with their definitions:

Centerers—

46. Cam-closing,
47. Coupled V-jaws,
48. Hollow cone,
49. Pivoted lever and cone,
50. Pivoted link.

In same division, class 90, Gear Cutting, Milling, and Planing, change the title of subclass 13, Milling, Pattern-controller, to read:

Milling—

13. Pattern-controlled,

abolish the existing definition, and establish in lieu thereof the following definition:

13. MILLING, PATTERN-CONTROLLED. Milling machines in which the relative movement of the cutting tool and work is adapted to be controlled wholly or partly by a pattern. The term "pattern" is intended to include templates, cams, objects, and flat designs (but not mere eccentrics) which are instrumental in determining the form of the finished work. The cutting tool or its shank may serve as pattern tracer.

Note.—Many of the machines in this class and subclasses thereunder involve pantographic devices. For other pantographic and pattern-controlled machines search classes 90, GEAR CUTTING, MILLING, AND PLANING, subclasses 10, Gear-cutting, Reciprocating cutter, Templet guide; 24.3, Planing, Pattern-controlled, and 62, Patterns, tracers, and tools; 33, GEOMETRICAL INSTRUMENTS; 51, GRINDING AND POLISHING; 82, TURNING; 112, SEWING MACHINES, subclass 7, Embroidering; 125, STONE WORKING; 142, WOOD TURNING; 143, WOOD SAWING; 144, WOODWORKING; 147, COOPERING; 164, CUTTING AND PUNCHING SHEETS AND BARS; 178, TELEGRAPHY, subclasses 46, Telegraphs, Automatic; 51, Telegraphs, Multiplex, and 54, Telegraphs, Printing.

In same division, same class, establish the following subclasses and definitions:

Milling—

Pattern-controlled—

- 13.1. Reproducing—
13.8. Automatic,
13.2. Duplicating—
13.5. Automatic,
13.3. Rotary work—
13.4. Automatic,
13.6. Rotary work—
13.7. Automatic,

Milling—

Pattern-controlled—

- 13.9. Rotary work.
62. Patterns, tracers and tools.
Planing—
24.3. Pattern-controlled—
24.4. Electromagnetically-controlled tool—
24.5. Rotary work.

13.1. MILLING, PATTERN-CONTROLLED, REPRODUCING. Pattern-controlled milling machines which are adapted to reproduce substantially the form of the pattern of the same or different size or slightly distorted form (such as a change in part of the dimensions without a corresponding change in the remaining dimensions or the reproduction of a flat design on a curved surface or vice versa) or in which the pattern and finished work bear to each other an enantiomorphic or relief and intaglio relation or in which the pattern is thus reproduced repeatedly on the same work, but not machines which are adapted to employ two or more patterns simultaneously or a single pattern and simultaneously acting devices which act to produce work which is otherwise different from the pattern.

13.2. MILLING, PATTERN-CONTROLLED, REPRODUCING, DUPLICATING. Pattern-controlled milling machines which are limited to reproducing the pattern in substantially the same size but in which the form of the pattern may be distorted within the limits defined under subclass 13.1, Milling, Pattern-controlled, Reproducing.

13.3. MILLING, PATTERN-CONTROLLED, REPRODUCING, DUPLICATING, ROTARY WORK. Duplicating pattern-controlled milling machines in which the work may be rotated through a complete circle or the cutting tool correspondingly moved around the work.

Search Classes—

- 51—GRINDING AND POLISHING.
82—TURNING.
142—WOOD TURNING.

13.4. MILLING, PATTERN-CONTROLLED, REPRODUCING, DUPLICATING, ROTARY WORK, AUTOMATIC. Rotary duplicating pattern-controlled milling machines in which the relative movement of the pattern and tracer is produced by machine devices instead of by hand. Such movement of pattern and tracer is usually in the form of a series of close-lying straight or curved lines, spirals, helices, or concentric circles, the tool and work moving correspondingly, whereby the pattern is completely traced over.

13.5. MILLING, PATTERN-CONTROLLED, REPRODUCING, DUPLICATING, AUTOMATIC. Duplicating pattern-controlled milling machines (other than rotary) in which the relative movement of the pattern and tracer is produced by machine devices instead of by hand.

13.6. MILLING, PATTERN-CONTROLLED, REPRODUCING, ROTARY WORK. Reproducing pattern-controlled milling machines in which the work may be rotated through a complete circle or the cutting tool correspondingly moved around the work.

13.7. MILLING, PATTERN-CONTROLLED, REPRODUCING, ROTARY WORK, AUTOMATIC. Rotary reproducing pattern-controlled milling machines in which the relative movement of the pattern and tracer is produced by machine devices instead of by hand.

13.8. MILLING, PATTERN-CONTROLLED, REPRODUCING, AUTOMATIC. Reproducing pattern-controlled milling machines (other than rotary) in which the relative movement of the tracer and pattern is produced by machine devices instead of by hand, so that the machine works without attention except for the necessary power. Such movement of tracer and pattern is usually in the form of a series of close-lying straight or curved lines, spirals, or concentric circles, the tool and work moving correspondingly, whereby the pattern is completely traced over.

13.9. MILLING, PATTERN-CONTROLLED, ROTARY WORK. Pattern-controlled milling machines in which the work may be rotated through a complete circle or the cutting tool correspondingly moved around the work.

24.3. **PLANING, PATTERN-CONTROLLED.** Planing machines in which the relative movement of the cutting tool and work is intended to be controlled wholly or partly by a pattern. The term "pattern" is intended to include templates, cams, objects, and flat designs (but not mere eccentrics) which are instrumental in determining the form of the finished work. The cutting tool or its shank may serve as pattern tracer.

Note.—Devices in which the tracer is moved over the pattern by hand or in which the function of the cutting tool is clearly for marking only are excluded, with the exception of devices in which the relative movement of the cutting tool and work is in the form of a series of close-lying lines.

Note.—Tools which mark by a cutting point are generally distinguishable from true cutting tools by being held down to the work surface by yielding means—such as a spring, weight, or by hand—so as to produce a light cut and allow for inequalities in the work surface. Hand-directed tracer machines with a simple cutting-point tool and other pantographic devices are considered to be geometrical instruments and are classified therewith.

Note.—See search notes under subclass 13, Milling, Pattern-controlled.

Search Classes—

90—GEAR CUTTING, MILLING, AND PLANING, subclass 10, Gear-cutting, Reciprocating cutter, Template guide, and the subclasses of automatic machines under subclass 13, Milling, Pattern-controlled.

33—GEOMETRICAL INSTRUMENTS.

86—ARMS, PROJECTILES, AND EXPLOSIVE CHARGES, MAKING, subclass 5, Rifling.

24.4. **PLANING, PATTERN-CONTROLLED, ELECTROMAGNETICALLY-CONTROLLED TOOL.** Pattern-controlled planing machines in which the pattern controls the relative movement of the cutting tool and work wholly or partly by electromagnetic means, including machines in which the work rotates continuously. Most of the devices involve a pattern which has electrically conducting and non-conducting portions, over which a conducting tracer moves in a series of close-lying lines, the work and tool having a corresponding movement, the position of the tool normal to the work being controlled by an electromagnet suitably connected to the tracer and pattern.

Note.—Machines in which a pattern electromagnetically controls only clutches, work speed, or the lifting of a tracer on a return stroke, etc., remain in classes otherwise providing for them. Devices in which the corresponding (or synchronous) motion of the work and pattern (or tracer and tool) is produced or controlled otherwise than mechanically (generally at a distance) are excluded.

Search Classes—

164—CUTTING AND PUNCHING SHEETS AND BARS, subclass 115, Punching, Machines, Punch selector, Pattern-controlled, Electrically operated.

173—TELEGRAPHY, subclasses 46, Telegraphs, Automatic; 51, Telegraphs, Multiplex, and 54, Telegraphs, Printing.

193—MATRIX MAKING, subclass 4, Reciprocating die-carrier, electrical.

24.5. **PLANING, PATTERN-CONTROLLED, ELECTROMAGNETICALLY-CONTROLLED TOOL, ROTARY WORK.** Electromagnetically-pattern-controlled planing machines in which the work is adapted to rotate or the tool to rotate around the work.

Search Classes—

90—GEAR CUTTING, MILLING, AND PLANING, subclasses 13.4, Milling, Pattern-controlled, Reproducing, Duplicating, Rotary work, Automatic; 13.7, Milling, Pattern-controlled, Reproducing, Rotary work, Automatic, and 13.9, Milling, Pattern-controlled, Rotary work.

82—TURNING.

142—WOOD TURNING.

62. **PATTERNS, TRACERS AND TOOLS.** Patterns and tracers only which are specially adapted for use with pattern-controlled cutting tools, cutting tools only which are specially adapted for use with a special pattern or tracer, and devices (such as used on automatic machines) for automatically assisting in moving a tracer up over abrupt parts of a pattern.

Note.—Search subclasses of automatic machines under subclass 13, Milling, Pattern-controlled.

Most of the patents in the above subclasses have been taken from class 159, Engraving, hereinafter abolished.

In Division XV, class 49, Glass, abolish the following subclasses with their definitions:

Cutting hard glass—

49. Lens-blanks,

51. Guides and gages.

In same division, same class, add to the search notes under subclass 48, Cutting hard glass, the following:

33—GEOMETRICAL INSTRUMENTS, the subclasses under subclass 18, Scribes, for mechanically guided means for scratching the design upon the glass when heating, breaking, or like special operations are not included.

In Division XVII, class 101, Printing abolish subclass—

Ruling machines—

129. Rotary,

and change the title of subclass 128, Ruling machines, to read:

128. Ruling feature.

In Division XXI, class 242, Winding and Reeling, establish the following subclasses and definitions:

Reeling and unreeling—

Reels—

84.8. Tape-measure type—

84.9. Spring drum.

84.8. **REELING AND UNREELING, REELS, TAPE-MEASURE TYPE.** Reels designed for holding measuring tape.

Search Class—

33—GEOMETRICAL INSTRUMENTS, subclass 138, Distance, Tape, Reel feature, and the subclasses thereunder, for tape-measure reels where the invention involves some measuring feature.

84.9. **REELING AND UNREELING, REELS, TAPE-MEASURE TYPE, SPRING DRUM.** Tape-measure reels provided with spring drums for rewinding the tape.

Search Class—

242—WINDING AND REELING, subclass 107, Reeling and unreeling, Reels, Spring drum type, and the subclasses thereunder, for other spring drum reels.

In Division XXII, class 42, Firearms, abolish the following subclasses, with their definitions:

80. Sights—

81. Reflectors and illuminators,

82. Vertically adjustable.

In same division, class 89, Ordnance, abolish the following subclass, with its definition:

32. Sights.

In same division, class 114, Ships, abolish the following subclass, with its definition:

Form—

64. Drafting.

In Division XXIII, class 235, Registers, after the definition of subclass 61, Calculators, add the following search note:

Search Class—

33—GEOMETRICAL INSTRUMENTS, for means for calculating unknown functions of geometrical figures, said means having members designed to form representations of said figures.

In Division XXIV, class 223, Apparel apparatus, abolish subclasses—

1. Charts—

2. Adjustable.

16. Garment-fitters.

In Division XXV, class 83, Mills, establish subclass—

92. Assorters, miscellaneous automatic.

Most of the patents in this subclass have been taken from class 73, Measuring Instruments, subclass 138, Gages, Assorting, hereinafter abolished.

In Division XXIX, class 143, Wood Sawing, abolish the following subclass, with its definition:

Saw-table gages—

172. Markers.

In same division, class 145, Wood-Working Tools, abolish the following subclasses, with their definitions:

Axes—

4. Gage attachments.

23. Chalk-line holders and chalkers.

In same division, same class, establish the following subclass and definition:

129. Guides.

129. **GUIDES.** Means for guiding woodworking tools not more specifically provided for.

In Division XXXIII, class 72, Masonry and Concrete Structures, abolish the following subclasses, with their definitions:

Implements—

132. Gages,

133. Plumbs.

In Division XXXV, class 132, Toilet, establish subclass—

31. Hair dressers' guides.

Most of the patents in this subclass have been taken from class 73, Measuring Instruments, subclass 139, Gages, Collocating, hereinafter abolished.

In Division XXXVIII, class 120, Stationery, abolish the following subclasses, with their definitions:

Penholders—

99. Multiple,

105. Ruling-guards.

In same division, same class, establish the following subclass and definition:

Pens—

109.5. Drawing.

109.5. **PENS, DRAWING.** Pens designed for drawing purposes, being adapted to operate when moved in opposite directions.

In same division, same class, after the main class definition add the following note:

Search Class—

33—GEOMETRICAL INSTRUMENTS, subclass 41, Scribes, Parallel line, for marking means when designed for drawing a plurality of parallel lines or for drawing a line at a definite distance from a guide.

In same division, class 125, Stone Working, abolish subclass—

12. **Millstone paint-staffs.**

In Division XLII, class 177, Electric Signaling, establish subclass—

351. **Telemetric.**

Most of the patents in this subclass have been taken from class 73, Measuring Instruments, subclass 117, Telemetry, hereinafter abolished.

In Division XXXVI, class 95, Photography, abolish the following subclass, with its definition:

Cameras—

52. Finders.

In same division, class 73, Measuring Instruments, abolish subclasses—

6. Bevels.

Callipers—

- 105. Dial.
- 106. Stem.
- 9. **Cloth-measuring machines.**
- 125. **Compasses—**
- 126. Azimuth attachments,
- 127. Deviation correction,
- 128. Deviation indicators,
- 129. Liquid.
- 73. **Conformators.**
- 13. **Dividing engines.**
- 16. **Gages—**
- 138. Assorting,
- 139. Collocating—
- 140. Clapboards,
- 141. Tool and work,
- 142. Wheel and axle,
- 143. Conforming,
- 107. Depth,
- 144. Dimension,
- 145. Marking—
- 146. Edge-guided,
- 77. Micrometer,
- 147. Size,
- 66. Surface,
- 148. Templet,
- 67. Track,
- 149. Truing.

Instruments—

- 150. Compound—
- 185. Primarily calipers or dividers,
- 186. Primarily gages,
- 187. Squares and bevels,
- 188. Squares and levels.
- 63. **Leather-measuring.**
- Levels—**
- 70. Spirit—
- 124. Clinometer.
- Measures—**
- 36. Rotary,
- 40. Scale,
- 64. Shoemakers',
- 48. Tailors',
- 49. Tape.
- 80. **Pitch-boards.**
- 81. **Planimeters.**
- 72. **Plumb-bobs.**
- 71. **Plumb-levels.**
- 113. **Spacing instruments.**
- 47. **Squares—**
- 115. Center,
- 116. Folding.
- 117. **Telemetry.**
- Thermometers—**
- 85. Telethermometers.

63. Leather-measuring.

Levels—

- 70. Spirit—
- 124. Clinometer.

Measures—

- 36. Rotary,
- 40. Scale,
- 64. Shoemakers',
- 48. Tailors',
- 49. Tape.

80. Pitch-boards.

- 81. **Planimeters.**
- 72. **Plumb-bobs.**
- 71. **Plumb-levels.**
- 113. **Spacing instruments.**
- 47. **Squares—**
- 115. Center,
- 116. Folding.
- 117. **Telemetry.**
- Thermometers—**
- 85. Telethermometers.

80. Pitch-boards.

- 81. **Planimeters.**
- 72. **Plumb-bobs.**
- 71. **Plumb-levels.**
- 113. **Spacing instruments.**
- 47. **Squares—**
- 115. Center,
- 116. Folding.
- 117. **Telemetry.**
- Thermometers—**
- 85. Telethermometers.

113. Spacing instruments.

- 47. **Squares—**
- 115. Center,
- 116. Folding.
- 117. **Telemetry.**
- Thermometers—**
- 85. Telethermometers.

47. Squares—

- 115. Center,
- 116. Folding.
- 117. **Telemetry.**
- Thermometers—**
- 85. Telethermometers.

115. Center,

- 116. Folding.
- 117. **Telemetry.**
- Thermometers—**
- 85. Telethermometers.

116. Folding.

- 117. **Telemetry.**
- Thermometers—**
- 85. Telethermometers.

117. Telemetry.

- Thermometers—**
- 85. Telethermometers.

85. Telethermometers.

-

Gages—

54. Water—

82. Float,

that under the group of "Instruments" two subclasses still remain, as follows:

Instruments—

- 151. Miscellaneous,
- 152. Pivots and bearings,

and that under the group of "Measures" one subclass still remains, as follows:

Measures—

123. Speed.)

In same division abolish class 159, Engraving, most of the patents formerly contained therein having been placed in class 33, Geometrical Instruments, hereinafter established, and in class 90, Gear Cutting, Milling, and Planing, subclasses 13.1 to 13.9, inclusive; subclasses 24.3 to 24.5, inclusive, and subclass 62, hereinafter established. Those of the lathe type have been placed in appropriate subclasses in class 82, Turning.

(Note.—Most of the patents in the subclasses abolished in this order have been placed in class 33, Geometrical Instruments, herein established, unless otherwise noted.)

In same division abolish class 33, Drafting, and establish in lieu thereof class 33, Geometrical Instruments, with the following subclasses and definitions:

CLASS 33.—GEOMETRICAL INSTRUMENTS.

Subclasses.

- | | |
|------------------------------------|--|
| 2. Apparel— | Distance— |
| 3. Footwear— | Opposed contacts— |
| 4. Laying out— | Pivoted— |
| 5. Patterns, | Joints and setters— |
| 6. Processes, | Screw adjustment— |
| 11. Laying out— | 154. Median, |
| 16. Adjustable, | 155. Tangent, |
| 12. Patterns and charts— | 151. Point parallelizing, |
| 14. Adjustable— | 150. Proportional, |
| 15. Conforming, | 163. Screw adjustment— |
| 13. Perforated, | 164. Micrometer— |
| 7. Leveling feature, | 167. Attachments, |
| 17. Processes, | 166. Particular indicator, |
| 8. Stand supported— | 165. Preliminary setting, |
| 9. Skirt— | |
| 10. Platform. | |
| 121. Area integrators— | 144. Track— |
| 123. Electrical, | 146. Dial, |
| 122. Planimeters, | 145. Leveling feature |
| 124. Rolling contact. | 141. Rolling contact— |
| 204. Direction indicators— | 142. Computing, |
| 205. Bore-hole testers, | 169. Single or offset contact— |
| 206. Levels and plumbs— | 173. Attachment type, |
| 211. Bubble— | 172. Dial, |
| 213. Adjustable— | 170. Screw adjustment— |
| 214. Adjusting means, | 171. Pivotal, |
| 212. Multi-indicating bubble, | 126. Sounding, |
| 210. Compound bubble and pendulum, | 137. Tape— |
| 208. Folding and extensible, | 138. Reel feature— |
| 209. Liquid column, | 139. Dial— |
| 215. Pendulum— | 140. Computing. |
| 218. Adjustable— | 174. Gages— |
| 219. Adjusting means, | 193. Axle, |
| 216. Bob-type— | 178. Circular size— |
| 217. Reel feature, | 179. Flexible band, |
| 220. Checking feature, | 180. Collocating— |
| 221. Securing feature, | 187. Clapboard, |
| 207. Special supports, | 181. Machine parts— |
| 222. Magnetic compasses— | 182. Rolls, |
| 224. Deviation compensators, | 183. Typewriter, |
| 225. Deviation preventers, | 184. Watch, |
| 223. Liquid. | 188. Shingle, |
| 125. Distance— | 185. Tool— |
| 127. Fabric and cord— | 186. Shears, |
| 128. Bolt, | 175. Conformer— |
| 135. Cutting feature, | 176. Flexible band, |
| 136. Predetermined stop or signal, | 177. Curve-ruler type, |
| 129. Rolling contact— | 194. Door and window, |
| 133. Computing, | 195. Hoof, |
| 130. Cutting feature— | 196. Millstone, |
| 131. Predetermined stop or signal, | 197. Mortise, |
| 134. Non-feeding, | 198. Paper tearing, |
| 132. Predetermined stop or signal, | 189. Point markers— |
| 143. Opposed contacts— | 190. Button or buttonhole. |
| 162. Adjustable wedge, | 191. Center, |
| 158. Beam-trammel type— | 192. Proportional, |
| 160. Pivoted trammel, | 199. Screw thread, |
| 159. Screw adjustment, | 200. Spectacle, |
| 147. Dial— | 201. Tool— |
| 148. On pivoted type, | 202. Saw, |
| 161. Extensible-rule type, | 203. Wheel. |
| 168. Fixed, | 46. Light-ray type— |
| 149. Pivoted— | 68. Angular and sliding adjustment, |
| 152. Extensible leg, | 67. Chart and straight edge features, |
| 153. Joints and setters— | 47. Gun sights— |
| 157. Median handle, | 50. Firearm-telescope type, |
| | 51. Multi-sight line, |
| | 48. Ordinance— |
| | 49. Automatic gun movement compensators, |

CLASS 33.—GEOMETRICAL INSTRUMENTS—Continued.

Subclasses.

- Light-ray type—**
Gun sights—
 52. Particular surfaces,
 53. Variable—
 59. Laterally,
 54. Rotatable series,
 58. Vertically,
 57. Vertically and fold-
 ing,
 56. Vertically and later-
 ally,
 55. Vertically, laterally,
 and folding,
 72. Horizontal angle measur-
 ers,
 73. Levels,
 63. Multi-sight line—
 64. Common view point,
 66. Relative angular adjust-
 ment,
 65. Relative angular and
 sliding adjustment,
 74. Rods and targets,
 61. Solar—
 62. Time computing,
 60. Track leveling and gaging,
 69. Vertical and horizontal
 angle measurers,
 70. Vertical angle measur-
 ers—
 71. Distance finding fea-
 ture.
- 1. Miscellaneous.**
18. Scribes—
 26. Compound curved and
 straight line,
 27. Curved line—
 30. Ellipsographs—
 31. Right angle guides,
 28. Lens,
 29. Stair,
 21. Curved surface—
 22. Pantographic,
 19. Graduating,
 23. Pantographic—
 24. Multiplane,
 25. Parallelogram type,
 41. Parallel line—
 42. Edge guided—
 43. Bevel set,
 44. Multi-markers,
 45. Machine type,
 20. Sight line controlled,
 32. Straight line—
 33. Clapboard,
 34. Ink—
 39. Blank space,
 37. Rotary markers—
 38. Blank space,
 35. Traveling markers—
 36. Rotary,
 40. Set shift.

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CLASS 33.—GEOMETRICAL INSTRUMENTS—Continued.

Subclasses.

- 75. Straight-edge type—**
 76. Base attached—
 80. Both ends connected,
 77. Perspective plotters,
 78. Rotary base,
 81. Set shift,
 79. Universal parallelism,
 82. Clapboard marking,
 86. Cord—
 87. Chalking feature,
 105. Folding-rule type—
 106. Opposed contact attach-
 ments,
 91. Intercontrolled bevel
 blades,
 88. Leveling feature—
 89. Square type,
 98. Multi-pivoted straight
 edges,
 90. Multiplane,
 83. Paper tearing,
 97. Pivoted straight-edge and
 sliding non-pivoted,
 115. Pivot joints—
 120. Locking,
 116. 90° limit—
 117. Locking,
 118. 180° limit—
 119. Locking,
 104. Polygons,
- Straight-edge type—**
 107. Rules and rulers—
 108. Parallel—
 109. Rolling,
 110. Set shift,
 111. Scale markings,
 84. Shaft alining and leveling,
 103. Sliding non-pivotal ad-
 justment,
 102. Sliding pivotal adjust-
 ment,
 96. Square and fixed straight
 edge,
 92. Square and hypotenuse,
 93. Square and pivoted
 straight edge—
 94. Sliding,
 95. Square and sliding non-
 pivoted straight edge,
 112. Squares—
 113. Scale markings,
 114. Separable joints,
 99. T-head and pivoted
 straight edge—
 100. Locking,
 101. Sliding,
 85. Wall-guides and plumbs.

CLASS 33.—GEOMETRICAL INSTRUMENTS.

DEFINITIONS.

Class.

The generic class covering means for determining the characteristics and the mutual relation of points, lines, angles, surfaces, and solids, considered as having no properties but those arising from extension and difference of situation. It includes mechanically guided means for describing lines. Processes or methods are classified in the appropriate subclasses with instruments unless specifically provided for by a process subclass. For the most part specific subclasses are not provided for compound instruments; but an invention comprising matter classifiable in more than one specific subclass is placed in the subclass having the lowest number and cross referenced into the subclass or subclasses having the higher number or numbers.

Note.—The following matter is excluded:

The measurement of fluent material.

Instruments falling in this class in combination with check-controlled means or with means for leaving a permanent record or for transmitting the indicator reading to a distance or in combination with a series of signals exceeding two.

Observation instruments in which the principle of operation depends upon diverting light.

Means for guiding or stopping tools other than scribes.

Means for automatically assorting objects.

Means connected with a device classifiable elsewhere to automatically indicate the relative position of movable parts of said device. (This does not refer to means connected with a device classifiable elsewhere to indicate the position of said device with relation to other things not a part of the device.)

Search Classes—

84—MUSIC, subclass 68, Recording attachments, and 234, RECORDERS, for mechanical scribes employed for recording purposes.

85—OPTICS, for observation geometrical instruments whose principles of operation depend upon diverting light.

177—ELECTRIC SIGNALING, subclass 351, Telemetric, for means falling in this class having a movable indicator or its equivalent, in combination with means designed to be located at a distance having a movable or changeable indicator designed to be electrically controlled by the movement of the first-named indicator.

194—CHECK-CONTROLLED APPARATUS, for instruments of the type found in this class in combination with check-controlled means for restricting their use.

Subclasses.

1. MISCELLANEOUS. Inventions falling under the class definition not provided for in the following subclasses.

2. APPAREL. Means for ascertaining the size and shape of clothing for the human body and for laying out the work from the data obtained.

Search Classes—

33—GEOMETRICAL INSTRUMENTS, subclass 18, Scribes, and the subclasses thereunder, for devices which may be used in scribing the outlines of patterns.

33—GEOMETRICAL INSTRUMENTS, subclasses 175, Gages, Conformer, and 176, Gages, Conformer, Flexible band, for devices adapted to be adjusted to conform to a portion of the body and retain the form of that portion of the body when removed therefrom.

33—GEOMETRICAL INSTRUMENTS, subclasses 178, Gages, Circular size, and 179, Gages, Circular size, Flexible band, when the dimension desired is one of circular size only.

33—GEOMETRICAL INSTRUMENTS, subclass 190, Gages, Point markers, Button or buttonhole, for devices for marking the position of buttons and buttonholes.

223—APPAREL APPARATUS, subclass 18, Garment forms, for forms upon which garments may be fitted.

3. APPAREL, FOOTWEAR. Means for ascertaining the dimensions of footwear and for laying out the same.

4. APPAREL, FOOTWEAR, LAYING OUT. Means employed in laying out footwear.

Search Class—

33—GEOMETRICAL INSTRUMENTS, subclass 190, Gages, Point markers, Button or buttonhole, for gages for marking the location of buttons and buttonholes for shoes.

5. APPAREL, FOOTWEAR, LAYING OUT, PATTERNS. Means employed in laying out footwear having shapes corresponding to the desired shape of the portion of the footwear being laid out.

6. APPAREL, FOOTWEAR, PROCESSES. Methods employed in taking measurements for or in laying out footwear.

7. APPAREL, LEVELING FEATURE. Instruments for ascertaining garment dimensions having level or plumb attachments.

Search Class—

33—GEOMETRICAL INSTRUMENTS, subclass 206, Direction indicators, Levels and plumbs, and the subclasses thereunder, for level or plumb structure *per se*.

CLASS 33—Continued.

8. APPAREL, STAND SUPPORTED. Instruments employed in ascertaining garment dimensions having a portion adapted to rest on a support other than the body being fitted.

9. APPAREL, STAND SUPPORTED, SKIRT. Stand-supported instruments for ascertaining the dimensions of skirts. Usually gages for marking the bottom of the skirt.

10. APPAREL, STAND SUPPORTED, SKIRT, PLATFORM. Stand-supported skirt dimension finders having platforms upon which the person being fitted stands.

11. APPAREL, LAYING OUT. Means employed in laying out the garment on the cloth. Tailors' squares, unless especially designed for taking measurements from the body, are considered laying out instruments and are classifiable here.

Search Class—

33—GEOMETRICAL INSTRUMENTS, subclass 75, Straight-edge type, and the subclasses thereunder, for square and bevel and ruler structure generally.

12. APPAREL, LAYING OUT, PATTERNS AND CHARTS. Means employed in laying out garments having shapes or outlines corresponding to the desired shape of the portion of the garment being designed. Also includes fabrics having pattern lines placed thereon.

Search Class—

33—GEOMETRICAL INSTRUMENTS, subclasses 11, Apparel, Laying out, and 16, Apparel, Laying out, Adjustable, for curves and rules of various shapes which conform in part to the portion of the garment being laid out, but which are intended to be moved about from one side to another and not intended to correspond in shape to the entire portion under consideration.

13. APPAREL, LAYING OUT, PATTERNS AND CHARTS, PERFORATED. Garment patterns and charts having perforated outlines through which the garment may be marked on the fabric.

14. APPAREL, LAYING OUT, PATTERNS AND CHARTS, ADJUSTABLE. Garment patterns and charts having relatively adjustable parts.

15. APPAREL, LAYING OUT, PATTERNS AND CHARTS, ADJUSTABLE, CONFORMING. Garment patterns the parts of which may be adjusted with respect to each other by being placed upon the person and caused to conform thereto. Does not include devices designed to retain the form of the body when removed therefrom.

16. APPAREL, LAYING OUT, ADJUSTABLE. Means not more specifically provided for, adapted for laying out the garment, which have relatively adjustable parts.

17. APPAREL, PROCESSES. Methods employed in taking measurements for and laying out apparel other than footwear.

18. SCRIBERS. Mechanically guided relatively traveling means for describing lines. Includes scratching and scoring.

Search Classes—

33—GEOMETRICAL INSTRUMENTS, subclass 143, Distance, Opposed contacts, and the subclasses thereunder, for devices having marking points, but in which no special means is provided for permitting travel of the point or in which both points are not designed for drawing lines.

49—GLASS, subclass 48, Cutting hard glass, and the subclasses thereunder, for devices for scratching glass, in combination with other features, such as heating, breaking, and the like; also tools designed for scratching glass tubes previous to breaking are classifiable there even when mechanically guided.

82—TURNING, and 90, GEAR CUTTING, MILLING, AND PLANING, subclass 24, Planing, and the subclasses thereunder, for devices in which a cutting tool is rigidly set, so that it may not yield to the inequalities of the work surface, or in which the tool is given a relative travel in close-lying consecutive lines over the work and caused to produce solid effects by cutting during a portion of its travel only.

84—MUSIC, subclass 68, Recording attachments.

164—CUTTING AND PUNCHING SHEETS AND BARS, for devices having similar mechanical guiding means, but in which the tool is designed for cutting through material instead of marking or scratching the surface.

234—RECORDERS, for mechanical scribes employed in recording operations. (Means guided by contact with the surface of a body other than the earth's surface or fixed ways thereon are considered scribes rather than recorders.)

19. SCRIBERS, GRADUATING. Means for scribing scale divisions on dials, rules, and the like.

Search Class—

90—GEAR CUTTING, MILLING, AND PLANING, subclasses 56, Indexing, and 57, Indexing, Index-heads, for analogous structure.

20. SCRIBERS, SIGHT LINE CONTROLLED. Scribes in which the movement of the scribing member is controlled by sighting means between the eyes of the observer and a distant point.

21. SCRIBERS, CURVED SURFACE. Scribes designed to operate on curved surfaces, usually cylindrical.

CLASS 33—Continued.

22. SCRIBERS, CURVED SURFACE, PANTOGRAPHIC. Curved surface scribers employing a pantographic movement.

Search Class—

- 33—GEOMETRICAL INSTRUMENTS, subclass 23, Scribers, Pantographic, and the subclasses thereunder, for other pantographic scribers.
23. SCRIBERS, PANTOGRAPHIC. Scribers not more specifically provided for comprising a tracing member designed to be grasped by the hand and moved as desired and a scribing member so connected with the tracing member that movement of the tracing member causes a similar movement to be transmitted to the scribing member. Does not include parallel line hand scribing gages comprising merely a bar having a guiding or tracing member at one end and a scribing member at the other where the entire instrument moves bodily.

Search Class—

- 33—GEOMETRICAL INSTRUMENTS, subclass 22, Scribers, Curved surface, Pantographic, for pantographic scribers for curved surfaces.
24. SCRIBERS, PANTOGRAPHIC, MULTIPLANE. Pantographic scribers so constructed that the tracing and scribing members necessarily move over different planes.
25. SCRIBERS, PANTOGRAPHIC, PARALLELOGRAM TYPE. Pantographic scribers in which the connection between the tracing and scribing members comprises four bars pivoted together in substantially the form of a parallelogram.

26. SCRIBERS, COMPOUND CURVED AND STRAIGHT LINE. Scribers having means designed for producing curved lines and also means designed for producing straight lines.
- Note.—Patents are not cross referenced from this subclass to subclasses 27, Scribers, Curved line, or 32, Scribers, Straight line.

27. SCRIBERS, CURVED LINE. Scribers designed for producing curved lines.

Search Class—

- 33—GEOMETRICAL INSTRUMENTS, subclass 26, Scribers, Compound curved and straight line, for devices having means designed for describing both straight and curved lines.
- 33—GEOMETRICAL INSTRUMENTS, subclasses 149, Distance, Opposed contacts, Pivoted, and the subclasses thereunder, and 158, Distance, Opposed contacts, Beam-trammel type, and the subclasses thereunder, for similar structures, but not provided with special means for permitting one leg to move about the other.
28. SCRIBERS, CURVED LINE, LENS. Scribers designed for describing the outlines of lenses.

29. SCRIBERS, CURVED LINE, STAIR. Scribers designed for laying out stair curves.

30. SCRIBERS, CURVED LINE, ELLIPSOGRAPHS. Scribers designed for producing ellipses.

Search Class—

- 33—GEOMETRICAL INSTRUMENTS, subclass 27, Scribers, Curved line, for curve scribers in which the scribing member is guided around a curved pattern which may or may not be elliptical in form.
31. SCRIBERS, CURVED LINE, ELLIPSOGRAPHS, RIGHT ANGLE GUIDES. Ellipsographs comprising two guides at right angles to each other and a scribing member having means to engage the guides.

32. SCRIBERS, STRAIGHT LINE. Scribers designed for producing straight lines or figures composed entirely of straight lines.

Search Class—

- 33—GEOMETRICAL INSTRUMENTS, subclass 26, Scribers, Compound curved and straight line, for devices designed for producing both straight and curved lines.
- 33—GEOMETRICAL INSTRUMENTS, subclass 75, Straight-edge type, and the subclasses thereunder, for straight edges not provided with scribing attachments, but which are frequently employed as guides in producing similar figures.

33. SCRIBERS, STRAIGHT LINE, CLAPBOARD. Scribers designed for marking clapboards preparatory to sawing.

Search Class—

- 33—GEOMETRICAL INSTRUMENTS, subclass 82, Straight-edge type, Clapboard marking, for straight edges designed for marking clapboards.

34. SCRIBERS, STRAIGHT LINE, INK. Straight line scribers having members adapted to mark with ink.

35. SCRIBERS, STRAIGHT LINE, INK, TRAVELING MARKERS. Miscellaneous straight line ink-scribers in which the marking member travels.

36. SCRIBERS, STRAIGHT LINE, INK, TRAVELING MARKERS, ROTARY. Traveling marker straight line ink-scribers having a traveling rotary marking member.

Search Class—

- 33—GEOMETRICAL INSTRUMENTS, subclass 37, Scribers, Straight line, ink, Rotary markers, for other rotary straight line markers.

27. SCRIBERS, STRAIGHT LINE, INK, ROTARY MARKERS. Straight line ink-scribers having a rotary marking member not more specifically provided for.

Search Class—

- 33—GEOMETRICAL INSTRUMENTS, subclass 36, Scribers, Straight line, Ink, Traveling markers, Rotary.

CLASS 33—Continued.

38. SCRIBERS, STRAIGHT LINE, INK, ROTARY MARKERS, BLANK SPACE. Rotary marker straight line ink-scribers having means whereby the marking is interrupted during a predetermined interval of travel.

Search Class—

- 33—GEOMETRICAL INSTRUMENTS, subclass 39, Scribers, Straight line, Ink, Blank space, for other blank space straight line markers.

39. SCRIBERS, STRAIGHT LINE, INK, BLANK SPACE. Straight line ink-scribers not more specifically provided for having means whereby the marking is interrupted during a predetermined interval of travel.

Search Class—

- 33—GEOMETRICAL INSTRUMENTS, subclass 38, Scribers, Straight line, Ink, Rotary markers, Blank space, for other blank space straight line markers.

40. SCRIBERS, STRAIGHT LINE, SET SHIFT. Straight line scribers designed for ruling parallel lines having a positive gage to limit the transfer of the ruling member from line to line.

Search Class—

- 33—GEOMETRICAL INSTRUMENTS, subclasses 81, Straight-edge type, Base attached, Set shift, and 110, Straight-edge type, Rules and rulers, Parallel, Set shift, for straight edges employed as guides in like work.

41. SCRIBERS, PARALLEL LINE. Scribers not more specifically provided for having scribing members designed for producing lines at an unvarying distance from each other throughout their length or at an unvarying distance from a guiding edge or the like.

Note.—While this group of instruments is almost always employed in producing straight lines, still they are not necessarily limited to that use and are therefore not classifiable under the "Straight line" group.

Search Classes—

- 111—SEEDERS AND PLANTERS, subclass 24, Land-markers, for devices having means for disturbing the earth along parallel lines.

- 120—STATIONERY, for penholders, chalk holders, and the like, which are not mechanically guided or spaced, and in subclass 111, Pens, Shading, for pens having multiple marking members for producing shaded lines.

42. SCRIBERS, PARALLEL LINE, EDGE GUIDED. Scribers designed to be guided by the edge of the material upon which the line or lines are being produced.

43. SCRIBERS, PARALLEL LINE, EDGE GUIDED, BEVEL SET. Edge-guided scribers in which the edge contacting member is pivotally adjustable with respect to the gage bar.

44. SCRIBERS, PARALLEL LINE, EDGE GUIDED, MULTI-MARKERS. Edge-guided scribers having more than one scribing point.

45. SCRIBERS, PARALLEL LINE, MACHINE TYPE. Parallel line scribers not more specifically provided for designed to be used on machines, as distinguished from hand instruments.

Search Class—

- 33—GEOMETRICAL INSTRUMENTS, subclass 34, Scribers, Straight line, Ink, for machines for ruling straight lines by the application of ink and which usually carry devices of the type found in this subclass.

46. LIGHT-RAY TYPE. Means in which a light ray is utilized to determine a straight line.

Search Classes—

- 88—OPTICS, for devices in which the principle of operation depends upon diverting the ray from a straight line or projecting an image in a straight line with the use of artificial light.

- 240—ILLUMINATION, for means for throwing a beam of artificial light in a straight line, including devices in which size of the beam may be varied.

- 248—SUPPORTS, subclass 43, Tripods, and the subclasses thereunder, for tripods and the instrument attaching structure for supporting instruments of the type found in this group.

47. LIGHT-RAY TYPE, GUN SIGHTS. Attachments for guns whereby a line of sight may be taken parallel to the longitudinal axis of the barrel or at a predetermined angle thereto.

Search Classes—

- 88—OPTICS, for means for throwing natural light on gun sights.
- 240—ILLUMINATION, subclass 2, Combined light and structure, or the subclasses thereunder, for means for throwing artificial light on gun sights.

48. LIGHT-RAY TYPE, GUN SIGHTS, ORDNANCE. Sightings designed for use on mounted guns.

Note.—Usually relates to the mounting and manipulation of telescopic sights. Details of sight structure adapted for use on firearms are cross referenced into the other subclasses.

Search Class—

- 33—GEOMETRICAL INSTRUMENTS, subclass 50, Light-ray type, Gun sights, Firearm-telescope type, for telescopic sights designed for use on firearms.

49. LIGHT-RAY TYPE, GUN SIGHTS, ORDNANCE, AUTOMATIC GUN MOVEMENT COMPENSATORS. Ordnance sights having means for automatically maintaining the sight in fixed position while movement is given the gun.

Search Class—

- 89—ORDNANCE, for combined sight and gun-controlling mechanism.

CLASS 33—Continued.

50. LIGHT-RAY TYPE, GUN SIGHTS, FIREARM-TELESCOPE TYPE. Firearm sights comprising a comparatively long tubular structure.

Search Class—

33—GEOMETRICAL INSTRUMENTS, subclass 48, Light-ray type, Gun sights, Ordnance, for telescopic sights designed for use on mounted guns.

51. LIGHT-RAY TYPE, GUN SIGHTS, MULTI-SIGHT LINE. Gun sights so constructed that a plurality of lines of sight may be taken without adjustment of parts.

52. LIGHT-RAY TYPE, GUN SIGHTS, PARTICULAR SURFACES. Gun sights having surfaces upon which light produces particular effects.

53. LIGHT-RAY TYPE, GUN SIGHTS, VARIABLE. Gun sights in which the position of the sight or some of its parts may be varied. Does not include telescopic sights nor those specially designed for ordnance.

Note.—This subclass and subclass 54, Light-ray type, Gun sights, Variable, Rotatable series, include, among other features, those variable sights in which the shape or size of the sight element may be varied, as distinguished from those in which a vertical or lateral adjustment of position may be made.

54. LIGHT-RAY TYPE, GUN SIGHTS, VARIABLE, ROTATABLE SERIES. Gun sights comprising a plurality of sights rigidly connected and mounted on a common pivot, so that the series may be rotated to bring the desired sight into position.

55. LIGHT-RAY TYPE, GUN SIGHTS, VARIABLE, VERTICALLY, Laterally, AND FOLDING. Gun sights that are vertically and laterally adjustable, so as to compensate for drift, windage, range, and the like, and also which may be folded to inoperative position.

56. LIGHT-RAY TYPE, GUN SIGHTS, VARIABLE, VERTICALLY AND Laterally. Gun sights that are vertically and laterally adjustable, but not foldable.

57. LIGHT-RAY TYPE, GUN SIGHTS, VARIABLE, VERTICALLY AND FOLDING. Gun sights that are vertically adjustable and also may be folded to inoperative position.

58. LIGHT-RAY TYPE, GUN SIGHTS, VARIABLE, VERTICALLY. Gun sights that are vertically adjustable only.

59. LIGHT-RAY TYPE, GUN SIGHTS, VARIABLE, Laterally. Gun sights that are laterally adjustable only.

60. LIGHT-RAY TYPE, TRACK LEVELING AND GAGING. Means designed for determining the position of railway tracks involving sighting features.

Search Class—

33—GEOMETRICAL INSTRUMENTS, subclass 144, Distance, Opposed contacts, Track, and the subclasses thereunder, for similar devices without sighting features.

61. LIGHT-RAY TYPE, SOLAR. Instruments designed for locating the position of the sun.

62. LIGHT-RAY TYPE, SOLAR, TIME COMPUTING. Solar instruments designed to compute the time of day, usually called sun dials.

63. LIGHT-RAY TYPE, MULTI-SIGHT LINE. Instruments having a plurality of means for directing sight lines, so that different observations may be taken without adjustment of parts.

Search Class—

177—ELECTRIC SIGNALING, subclass 351, Telemetric, for apparatus comprising a plurality of sighting means and electrical transmitting means for indicating at a distance the angle at which one or both of the sighting means is set.

64. LIGHT-RAY TYPE, MULTI-SIGHT LINE, COMMON VIEW POINT. Multi-sight line means in which the observations are taken from a common view point. Some of these comprise a view point means and an opening through which a definite field of view may be seen.

65. LIGHT-RAY TYPE, MULTI-SIGHT LINE, RELATIVE ANGULAR AND SLIDING ADJUSTMENT. Instruments in which the multi-sighting means may be adjusted angularly with respect to each other and also provided with means whereby the distance between them may be adjusted.

66. LIGHT-RAY TYPE, MULTI-SIGHT LINE, RELATIVE ANGULAR ADJUSTMENT. Multi-sight line means adjustable angularly with respect to each other not more specifically provided for.

67. LIGHT-RAY TYPE, CHART AND STRAIGHT EDGE FEATURES. Sighting instruments designed to be employed as an attachment to maps or charts or that include straight edges designed to be used in plotting or in forming geometrical figures the sides and angles of which correspond to various positions and directions taken by the sighting instrument.

Search Class—

33—GEOMETRICAL INSTRUMENTS, subclass 20, Scribes, Sight line controlled, for similar devices having scribing attachments.

68. LIGHT-RAY TYPE, ANGULAR AND SLIDING ADJUSTMENT. Light-ray instruments that are both angularly and slidably adjustable not more specifically provided for.

Note.—Does not include the adjustment of the entire instrument on its tripod.

CLASS 33—Continued.

69. LIGHT-RAY TYPE, VERTICAL AND HORIZONTAL ANGLE MEASURERS. Light-ray instruments having scales arranged for measurement of both vertical and horizontal angles. Many of these instruments are known as transits.

Search Class—

248—SUPPORTS, subclass 43, Tripods, and the subclasses thereunder, for tripod structure for instruments of this type.

70. LIGHT-RAY TYPE, VERTICAL ANGLE MEASURERS. Light-ray instruments having scales arranged for measuring vertical angles only.

71. LIGHT-RAY TYPE, VERTICAL ANGLE MEASURERS, DISTANCE FINDING FEATURE. Light-ray vertical angle measurers designed for finding the distance from the instrument to a remote object.

72. LIGHT-RAY TYPE, HORIZONTAL ANGLE MEASURERS. Light-ray instruments having scales arranged for measuring horizontal angles only.

73. LIGHT-RAY TYPE, LEVELS. Light-ray instruments designed for ascertaining levels and not provided with scales of any type.

74. LIGHT-RAY TYPE, RODS AND TARGETS. Devices designed to be located at a point remote from the observer and upon which the line of sight may fall.

Search Class—

33—GEOMETRICAL INSTRUMENTS, subclass 60, Light-ray type, Track leveling and gaging, for targets especially designed for use in track surveying.

75. STRAIGHT-EDGE TYPE. Instruments comprising one or more straight edges not more specifically provided for. Instruments found in this group are known by many names, among which may be mentioned rules, rulers, squares, bevels, bevel protractors, plotters, triangles, pitchboards, taper gages, chalk lines, etc. For the most part they are employed in laying out straight line figures or in graphically determining unknown quantities of straight line constructions.

Search Class—

33—GEOMETRICAL INSTRUMENTS, subclass 1, Miscellaneous, for various other plotters and for protractors not provided with a straight edge designed to be set at various angles.

33—GEOMETRICAL INSTRUMENTS, subclass 32, Scribes, Straight line, and the subclasses thereunder, for similar devices having scribe attachments.

33—GEOMETRICAL INSTRUMENTS, subclass 196, Gages, Millstone, for devices for truing millstone faces that sometimes include straight edge features.

76. STRAIGHT-EDGE TYPE, BASE ATTACHED. Straight edges which are attached to the support upon which the work is to be placed.

Note.—If the straight edge and the base are both specially modified to engage with each other, the patent is placed here, even when the straight edge is easily removable.

Search Classes—

11—BOOKBINDING, subclass 12, Book-leaf holders and marks, and 120, STATIONERY, subclass 33, Copy holders, Movable marker, for analogous structure.

77. STRAIGHT-EDGE TYPE, BASE ATTACHED, PERSPECTIVE PLOTTERS. Base attached straight edges specially designed for drawing perspective figures.

78. STRAIGHT-EDGE TYPE, BASE ATTACHED, ROTARY BASE. Straight edges attached to a rotary base, so that the work may be rotated, while the straight edge maintains a constant position.

79. STRAIGHT-EDGE TYPE, BASE ATTACHED, UNIVERSAL PARALLELISM. Straight edges so attached to the base that they may be set in any direction and moved over all portions of the base, but having means to maintain the predetermined direction.

80. STRAIGHT-EDGE TYPE, BASE ATTACHED, BOTH ENDS CONNECTED. Base attached straight edges which are connected to the base at both ends of the straight edge.

81. STRAIGHT-EDGE TYPE, BASE ATTACHED, SET SHIFT. Base attached straight edges for ruling parallel lines having a positive gage to limit the distance of transfer of the ruler from line to line.

Note.—Where one portion of the device is designed to remain stationary on the base, the patent is classified here, even though no positive connection with the base is shown.

Search Class—

33—GEOMETRICAL INSTRUMENTS, subclass 40, Scribes, Straight line, Set shift, for set shift straight edges having a scribe attachment.

33—GEOMETRICAL INSTRUMENTS, subclass 110, Straight-edge type, Rules and rulers, Parallel, Set shift, for set shift rulers in which all parts are free and designed to move over the base.

82. STRAIGHT-EDGE TYPE, CLAPBOARD MARKING. Straight edges specially designed for marking clapboards preparatory to sawing.

Search Class—

33—GEOMETRICAL INSTRUMENTS, subclass 33, Scribes, Straight line, Clapboard, for similar devices having scribe attachments.

CLASS 33—Continued.

83. STRAIGHT-EDGE TYPE, PAPER TEARING. Straight edges designed as guides for tearing paper.

Search Class—

- 33—GEOMETRICAL INSTRUMENTS, subclass 198, Gages, Paper tearing, for guides for tearing paper in irregular lines.
211—STORE FURNITURE, subclass 32, Serving apparatus, Roll holders, Cutting attachment, for similar devices in combination with roll holders for the paper.

84. STRAIGHT-EDGE TYPE, SHAFT ALINING AND LEVELING. Means employed as straight line guides for alining shafting. Usually includes cords with level or plumb attachments.

Note.—Does not include levels and plumbs without additional straight edge features.

Search Class—

- 33—GEOMETRICAL INSTRUMENTS, subclass 206, Direction indicators, Levels and plumbs, and the subclasses thereunder, for the structure of the level or plumb *per se*.

85. STRAIGHT-EDGE TYPE, WALL-GUIDES AND PLUMBS. Straight edges designed to be used as guides in wall construction. Includes level or plumb attachments.

Note.—Does not include levels or plumbs without additional straight edge features.

Search Class—

- 33—GEOMETRICAL INSTRUMENTS, subclass 206, Direction indicators, Levels and plumbs, and the subclasses thereunder, for level or plumb structure *per se*.

86. STRAIGHT-EDGE TYPE, CORD. Cord straight-line guides not more specifically provided for.

87. STRAIGHT-EDGE TYPE, CORD, CHALKING FEATURE. Inventions relating to cord guides having means for chalking the cord.

Search Class—

- 242—WINDING AND REELING, for reel structure for holding cords when no chalking feature is involved.

88. STRAIGHT-EDGE TYPE, LEVELING FEATURE. Straight-edge instruments not more specifically provided for having level or plumb attachments.

Search Class—

- 33—GEOMETRICAL INSTRUMENTS, subclass 206, Direction indicators, Levels and plumbs, and the subclasses thereunder, for level or plumb structure *per se*, including those having a single straight edge which forms the stock of the level.

- 33—GEOMETRICAL INSTRUMENTS, subclass 207, Direction indicators, Levels and plumbs, Special supports, for special supports to hold a level on a cord even when the cord is used as a straight edge, also for levels having means designed to be attached to a straight bar or blade.

89. STRAIGHT-EDGE TYPE, LEVELING FEATURE, SQUARE TYPE. Instruments comprising two straight edges connected to each other at an angle of 90° and having level or plumb attachments.

90. STRAIGHT-EDGE TYPE, MULTIPLANE. Instruments comprising a plurality of straight edges arranged for adjustment in more than one plane.

Search Class—

- 143—WOOD SAWING, subclass 88, Miter boxes, Adjustable, Bi-plane, for similar structure used as saw guides.

91. STRAIGHT-EDGE TYPE, INTERCONTROLLED BEVEL BLADES. Instruments comprising a plurality of straight edges so pivoted to a stock or its equivalent that one of the straight edges cannot be swung to a new position without a proportional movement of the other or others.

92. STRAIGHT-EDGE TYPE, SQUARE AND HYPOTENUSE. Instruments comprising two straight edges connected to each other at an angle of 90° and another straight edge or its equivalent arranged to slide over the first named straight edges, so as to be connected to them simultaneously at desired distances from the right angle.

Search Class—

- 33—GEOMETRICAL INSTRUMENTS, subclass 94, Straight-edge type, Square and pivoted straight edge, Sliding, for analogous structure.

93. STRAIGHT-EDGE TYPE, SQUARE AND PIVOTED STRAIGHT EDGE. Instruments comprising a square and one or more straight edges pivoted thereto.

94. STRAIGHT-EDGE TYPE, SQUARE AND PIVOTED STRAIGHT EDGE, SLIDING. Instruments comprising a square and one or more straight edges arranged to have both pivotal and sliding adjustment thereon.

Search Class—

- 33—GEOMETRICAL INSTRUMENTS, subclass 92, Straight-edge type, Square and hypotenuse, for analogous structure.

95. STRAIGHT-EDGE TYPE, SQUARE AND SLIDING NON-PIVOTED STRAIGHT EDGE. Instruments comprising a square and one or more straight edges having a sliding non-pivotal adjustment thereon.

96. STRAIGHT-EDGE TYPE, SQUARE AND FIXED STRAIGHT EDGE. Instruments comprising a square and one or more non-adjustable straight edges in addition to the edges of the square.

Search Class—

- 33—GEOMETRICAL INSTRUMENTS, subclass 104, Straight-edge type, Polygons, for instruments having straight edge boundaries, which may include a right angle, but with no reentrant angles.

CLASS 33—Continued.

97. STRAIGHT-EDGE TYPE, PIVOTED STRAIGHT-EDGE AND SLIDING NON-PIVOTED. Instruments comprising a straight edge having a pivotal adjustment, which may or may not slide, and a straight edge having a sliding but non-pivotal adjustment.

98. STRAIGHT-EDGE TYPE, MULTI-PIVOTED STRAIGHT EDGES. Instruments comprising a plurality of straight edges having pivotal adjustment with relation to each other at more than one point. The pivotal connection may or may not have a sliding adjustment.

Search Class—

- 33—GEOMETRICAL INSTRUMENTS, subclasses 105, Straight-edge type, Folding-rule type, and 106, Straight-edge type, Folding-rule type, Opposed contact attachments, for straight edges having multi-pivot joints, so that the straight edge may be folded up, but not intended for adjustment to form triangular and like figures, as in this subclass.

99. STRAIGHT-EDGE TYPE, T-HEAD AND PIVOTED STRAIGHT EDGE. Instruments comprising a head piece or stock having at least one straight edge or its equivalent and a straight edge pivoted to the head at substantially its median point and designed to project beyond the head on its straight edge side.

Search Class—

- 33—GEOMETRICAL INSTRUMENTS, subclass 115, Straight-edge type, Pivot joints, and the subclasses thereunder, for other pivot joint structure.

100. STRAIGHT-EDGE TYPE, T-HEAD AND PIVOTED STRAIGHT EDGE, LOCKING. T-head and pivoted straight-edge instruments having means for positively locking the position of the straight edge at one or more definite points.

101. STRAIGHT-EDGE TYPE, T-HEAD AND PIVOTED STRAIGHT EDGE, SLIDING. T-head and pivoted straight-edge instruments in which the straight edge is arranged for sliding adjustment along the pivot point.

102. STRAIGHT-EDGE TYPE, SLIDING PIVOTAL ADJUSTMENT. Instruments not more specifically provided for comprising straight edges having an adjustment connection which permits of both sliding and rotary movement. This subclass includes the instruments best known to the trade as levels.

103. STRAIGHT-EDGE TYPE, SLIDING NON-PIVOTAL ADJUSTMENT. Instruments not more specifically provided for comprising straight edges having a sliding non-pivotal adjustment.

104. STRAIGHT-EDGE TYPE, POLYGONS. Instruments comprising a non-adjustable plotting plate bounded by a series of straight edges forming no reentrant angles when one of the angles is a right angle.

Search Class—

- 33—GEOMETRICAL INSTRUMENTS, subclass 96, Straight-edge type, Square and fixed straight edge, for various other plotting plates bounded by straight edges.

105. STRAIGHT-EDGE TYPE, FOLDING-RULE TYPE. Straight-edge instruments having portions pivoted together and particularly designed to be used as rules when opened to 180°. Frequently one or more of the pivoted portions may be adjusted to positions other than 180° and used as squares or bevels.

Search Class—

- 33—GEOMETRICAL INSTRUMENTS, subclass 98, Straight-edge type, Multi-pivoted straight edges, for multi-pivoted straight edges not particularly designed to be used as rules when open.

- 33—GEOMETRICAL INSTRUMENTS, subclass 115, Straight-edge type, Pivot joints, and the subclasses thereunder, when the invention is limited to the pivot joint or the position-securing means therefor.

106. STRAIGHT-EDGE TYPE, FOLDING-RULE TYPE, OPPOSED CONTACT ATTACHMENTS. Folding-rule type instruments having opposed contact members which may be set to correspond with the distance being considered.

Search Class—

- 33—GEOMETRICAL INSTRUMENTS, subclass 143, Distance, Opposed contacts, and the subclasses thereunder, for other opposed contact instruments.

107. STRAIGHT-EDGE TYPE, RULES AND RULERS. Non-attached and non-folding straight bars of rigid material for ruling straight lines or for taking measurements along a line. Does not include a plurality of straight edges arranged at angles to each other.

Search Class—

- 33—GEOMETRICAL INSTRUMENTS, subclasses 105, Straight-edge type, Folding-rule type, and 106, Straight-edge type, Folding-rule type, Opposed contact attachments, for folding rules, and 161, Distance, Opposed contacts, Extensible-rule type, for those having portions adapted to slide together.

- 120—STATIONERY, subclass 2, Combination devices, Blotters and rulers, for rulers in combination with blotters.

108. STRAIGHT-EDGE TYPE, RULES AND RULERS, PARALLEL. Straight edges not more specifically provided for designed for drawing parallel straight lines.

Search Class—

- 33—GEOMETRICAL INSTRUMENTS, subclass 76, Straight-edge type, Base attached, and the subclasses thereunder, for base attached parallel rulers, and subclass 103, Straight-edge type, Sliding non-pivotal adjustment, for instruments having a bar slidably mounted on another bar and which may be used for drawing parallel lines.

CLASS 33—Continued.

109. STRAIGHT-EDGE TYPE, RULES AND RULERS, PARALLEL, ROLLING. Instruments for ruling parallel lines having a roller bearing on the work to maintain the direction of the straight edge constant as it advances from one line to the next.
110. STRAIGHT-EDGE TYPE, RULES AND RULERS, PARALLEL, SET SHIFT. Parallel rulers having a positive gage to limit the distance of transfer of the ruler from line to line.
- Search Class—**
33—GEOMETRICAL INSTRUMENTS, subclasses 81, Straight-edge type, Base attached, Set shift, for base attached set shift rulers, and 40, Scribes, Straight line, Set shift, for those having a scribing attachment.
111. STRAIGHT-EDGE TYPE, RULES AND RULERS, SCALE MARKINGS. Limited to the scale markings on rules.
- Search Class—**
33—GEOMETRICAL INSTRUMENTS, subclass 113, Straight-edge type, Squares, Scale markings, for scale markings for squares.
112. STRAIGHT-EDGE TYPE, SQUARES. Instruments comprising two straight edges non-adjustably connected to each other at an angle of 90°.
- Search Class—**
33—GEOMETRICAL INSTRUMENTS, subclasses 116, Straight-edge type, Pivot joints, 90° limit, and 117, Straight-edge type, Pivot joints, 90° limit, Locking, for pivot joint structure for squares.
113. STRAIGHT-EDGE TYPE, SQUARES, SCALE MARKINGS. Limited to the scale markings on squares.
- Search Class—**
33—GEOMETRICAL INSTRUMENTS, subclass 111, Straight-edge type, Rules and rulers, Scale markings, for scale markings for rules.
114. STRAIGHT-EDGE TYPE, SQUARES, SEPARABLE JOINTS. Limited to the joint structure permitting the blades of a square to be separated from each other, so that the instrument may be arranged in more compact form.
115. STRAIGHT-EDGE TYPE, PIVOT JOINTS. Limited to non-sliding pivot joint structure for connecting straight edges. Includes means for holding the straight edges in desired position with respect to each other.
- Search Class—**
33—GEOMETRICAL INSTRUMENTS, subclass 99, Straight-edge type, T-head and pivoted straight-edge, and subclasses thereunder, for similar structure.
33—GEOMETRICAL INSTRUMENTS, subclass 153, Distance, Opposed contacts, Pivoted, Joints and setters, and the subclasses thereunder, for joint structure for pivoted calipers and the like.
116. STRAIGHT-EDGE TYPE, PIVOT JOINTS, 90° LIMIT. Pivot joints for connecting straight edges constructed so as to limit the rotary movement to 90°.
117. STRAIGHT-EDGE TYPE, PIVOT JOINTS, 90° LIMIT, LOCKING. Pivot joints for connecting straight edges constructed so as to limit the rotary movement to 90° and having means for positively locking the position of the straight edges at one or more definite points.
118. STRAIGHT-EDGE TYPE, PIVOT JOINTS, 180° LIMIT. Pivot joints for connecting straight edges constructed so as to limit the rotary movement to 180°.
119. STRAIGHT-EDGE TYPE, PIVOT JOINTS, 180° LIMIT, LOCKING. Pivot joints for connecting straight edges constructed so as to limit the rotary movement to 180° and having means for positively locking the position of the straight edges at one or more definite points.
120. STRAIGHT-EDGE TYPE, PIVOT JOINTS, LOCKING. Pivot joints not more specifically provided for, for connecting straight edges, having means for positively locking the position of the straight edges at one or more predetermined points.
121. AREA INTEGRATORS. Integrating means for determining superficial extent directly.
122. AREA INTEGRATORS, PLANIMETERS. Area integrators having a tracing member designed to travel around the outline of the area to be determined. Frequently specially designed to determine effective pressure and horse-power from engine indicator diagrams.
123. AREA INTEGRATORS, ELECTRICAL. Area integrators having electrically operated mechanism.
124. AREA INTEGRATORS, ROLLING CONTACT. Area integrators employing one or more rolling contact distance measurers as a part of the structure.
- Search Class—**
33—GEOMETRICAL INSTRUMENTS, subclasses 129, Distance, Fabric and cord, Rolling contact, and the subclasses thereunder, and 141, Distance, Rolling contact, and the subclass thereunder, for rolling contact distance measurers.
125. DISTANCE. Means not more specifically provided for designed for determining one dimension.
- Search Class—**
33—GEOMETRICAL INSTRUMENTS, subclass 2, Apparel, and the subclasses thereunder, for instruments designed for fitting apparel.

CLASS 33—Continued.

- 33—GEOMETRICAL INSTRUMENTS, subclasses 105, Straight-edge type, Folding-rule type; 106, Straight-edge type, Folding-rule type, Opposed contact attachments; 107, Straight-edge type, Rules and rulers, and 111, Straight-edge type, Rules and rulers, Scale markings, for distance measuring instruments comprising rigid straight bars.
126. DISTANCE, SOUNDING. Means designed for ascertaining the depth of bodies of water. Does not include instruments in which the principle of operation depends upon the presence of a fluid, such as pressure indicators, floats, propeller wheels, and the like. The attachment of means for taking a sample from the bottom does not exclude an invention otherwise classifiable here. Does not include means to be attached to a ship to give warning when the water is shallow, but not designed for indicating depth.
127. DISTANCE, FABRIC AND CORD. Means not more specifically provided for designed for determining the length of flexible fabric or cord.
- Search Class—**
33—GEOMETRICAL INSTRUMENTS, the subclasses under subclass 75, Straight-edge type, for rules adapted to measure fabric or cord.
128. DISTANCE, FABRIC AND CORD, BOLT. Means designed for determining the length of fabric or cord in the bolt or package without unwinding the same.
- Search Class—**
33—GEOMETRICAL INSTRUMENTS, subclass 138, Distance, Tape, Reel feature, and the subclasses thereunder, for tape reels having a projection through which the tape may be passed between the layers of the bolt.
129. DISTANCE, FABRIC AND CORD, ROLLING CONTACT. Means designed for determining the length of fabric or cord comprising a measuring roller adapted to bear on the fabric to be measured and caused to rotate by the relative travel of the fabric.
- Search Classes—**
33—GEOMETRICAL INSTRUMENTS, subclass 141, Distance, Rolling contact, and the subclass thereunder, for other rolling contact measurers.
242—WINDING AND REELING, for means for transferring fabric from one roll to another when no measuring feature is included.
130. DISTANCE, FABRIC AND CORD, ROLLING CONTACT, CUTTING FEATURE. Rolling contact fabric and cord length measurers having special provision for cutting the material.
- Search Classes—**
33—GEOMETRICAL INSTRUMENTS, subclass 135, Distance, Fabric and cord, Cutting feature, for other cutting features.
164—CUTTING AND PUNCHING SHEETS AND BARS, for devices which automatically cut off predetermined lengths of fabric.
131. DISTANCE, FABRIC AND CORD, ROLLING CONTACT, CUTTING FEATURE, PREDETERMINED STOP OR SIGNAL. Rolling contact fabric and cord length measurers having special provision for cutting the material and having means to operate a signal or stop the device when a predetermined length has passed.
132. DISTANCE, FABRIC AND CORD, ROLLING CONTACT, PREDETERMINED STOP OR SIGNAL. Rolling contact fabric and cord length measurers not more specifically provided for having means to operate a signal or to stop the device when a predetermined length has passed.
- Search Classes—**
33—GEOMETRICAL INSTRUMENTS, subclasses 131, Distance, Fabric and cord, Rolling contact, Cutting feature, Predetermined stop or signal, and 136, Distance, Fabric and cord, Predetermined stop or signal, for analogous structure.
235—REGISTERS, subclasses 128, Alarm mechanism, and 132, Stop mechanism, for analogous structure.
133. DISTANCE, FABRIC AND CORD, ROLLING CONTACT, COMPUTING. Rolling contact fabric and cord length measurers having means for performing mathematical operations, so that the result will be indicated in other terms than length units.
- Search Classes—**
33—GEOMETRICAL INSTRUMENTS, subclass 142, Distance, Rolling contact, Computing, for analogous structure.
235—REGISTERS, the subclasses under subclass 61, Calculators, for computing devices *per se*.
134. DISTANCE, FABRIC AND CORD, ROLLING CONTACT, NON-FEEDING. Rolling contact fabric and cord length measurers in which means are not included for feeding the material past the roller.
135. DISTANCE, FABRIC AND CORD, CUTTING FEATURE. Means not more specifically provided for, for determining the length of fabric or cord, having special provision for cutting the material.
- Search Class—**
164—CUTTING AND PUNCHING SHEETS AND BARS, for devices which automatically cut off predetermined lengths of fabric or for gage tables for supporting fabrics to be cut by hand.
136. DISTANCE, FABRIC AND CORD, PREDETERMINED STOP OR SIGNAL. Means not more specifically provided for, designed for determining the length of fabric or cord, having means to operate a signal or to stop the device when a predetermined length has passed.

CLASS 33—Continued.

137. DISTANCE, TAPE. Means not more specifically provided for, for determining distance, comprising a flexible tape or the like adapted to be laid along the distance to be measured and used as a standard.
Search Class—
 33—GEOMETRICAL INSTRUMENTS, subclass 2, Apparel, and subclasses thereunder, for devices designed for holding tape measures in position in fitting apparel.
138. DISTANCE, TAPE, REEL FEATURE. Tape measures including a reel as a part of the invention.
Search Class—
 242—WINDING AND REELING, subclasses 84.8, Reeling and unreeling, Reels, Tape-measure type, and 84.9, Reeling and unreeling, Reels, Tape-measure type, Spring drum, for tape measures when not including measuring features.
139. DISTANCE, TAPE, REEL FEATURE, DIAL. Tape-measure reels having a dial for automatically indicating the length of tape drawn out.
140. DISTANCE, TAPE, REEL FEATURE, DIAL, COMPUTING. Tape-measure reels having a dial provided with means for performing mathematical operations, so that the result will be indicated in other terms than length units.
Search Class—
 235—REGISTERS, the subclasses under subclass 61, Calculators, for computing devices *per se*.
141. DISTANCE, ROLLING CONTACT. Means not more specifically provided for, designed for determining distance, comprising a measuring roll adapted to bear on the material to be measured and caused to rotate by relative travel of material and roll.
Search Class—
 33—GEOMETRICAL INSTRUMENTS, subclasses 124, Area integrators, Rolling contact, for similar devices used in determining area, and 129, Distance, Fabric and cord, Rolling contact, and subclasses thereunder, for analogous structure.
142. DISTANCE, ROLLING CONTACT, COMPUTING. Rolling contact distance measurers not more specifically provided for having means for performing mathematical operations, so that the result will be indicated in other terms than length units.
Search Classes—
 33—GEOMETRICAL INSTRUMENTS, subclass 133, Distance, Fabric and cord, Rolling contact, Computing, for analogous structure.
 235—REGISTERS, the subclasses under subclass 61, Calculators, for computing devices *per se*.
143. DISTANCE, OPPOSED CONTACTS. Means not more specifically provided for, for determining or laying off one dimension, said means having two contact members, said contact members being designed to coincide with the limits to be determined or laid off.
Search Classes—
 33—GEOMETRICAL INSTRUMENTS, subclass 3, Apparel, Footwear, for similar structure.
 33—GEOMETRICAL INSTRUMENTS, subclass 27, Scribes, Curved line, and the subclasses thereunder, for similar devices having special means for holding one contact member fixed while the other scribes a line about the same.
 33—GEOMETRICAL INSTRUMENTS, subclass 41, Scribes, Parallel line, and the subclasses thereunder, for similar devices designed for drawing parallel lines.
 33—GEOMETRICAL INSTRUMENTS, subclass 180, Gages, Collocating, and the subclasses thereunder, for gages designed for setting objects certain distances apart, but not including track gages.
 194—CHECK-CONTROLLED APPARATUS, subclass 102, Fraud-preventives, Size-testers, for analogous structure.
144. DISTANCE, OPPOSED CONTACTS, TRACK. Means having opposed contacts for determining the distance between the rails of a track.
145. DISTANCE, OPPOSED CONTACTS, TRACK, LEVELING FEATURE. Opposed contact track instruments having a level or plumb attachment.
Search Class—
 33—GEOMETRICAL INSTRUMENTS, subclass 206, Direction indicators, Levels and plumbs, and the subclasses thereunder, for level or plumb structure *per se*.
146. DISTANCE, OPPOSED CONTACTS, TRACK, DIAL. Opposed contact track instruments having an indicator which automatically shows on a scale the distance being determined.
Search Class—
 33—GEOMETRICAL INSTRUMENTS, subclasses 147, Distance, Opposed contacts, Dial; 148, Distance, Opposed contacts, Dial, On pivoted type, and 172, Distance, Single or offset contact, Dial, for similar dial instruments.
147. DISTANCE, OPPOSED CONTACTS, DIAL. Opposed contact instruments not more specifically provided for having an indicator member which is automatically controlled by the contacting members to show the distance between them.
Search Class—
 33—GEOMETRICAL INSTRUMENTS, subclasses 146, Distance, Opposed contacts, Track, Dial, and 172, Distance, Single or offset contact, Dial, for other dial instruments.
148. DISTANCE, OPPOSED CONTACTS, DIAL, ON PIVOTED TYPE. Opposed contact instruments which are pivotally adjustable and have dial attachments.

CLASS 33—Continued.

149. DISTANCE, OPPOSED CONTACTS, PIVOTED. Pivotally adjustable opposed contact instruments not more specifically provided for.
Search Class—
 33—GEOMETRICAL INSTRUMENTS, subclass 148, Distance, Opposed contacts, Dial, On pivoted type, for similar devices having dial attachments.
150. DISTANCE, OPPOSED CONTACTS, PIVOTED, PROPORTIONAL. Pivoted opposed contact instruments having two pairs of contacting members so interconnected that a movement of one pair produces a proportional movement of the other. Used in laying out distances proportional to other distances.
Search Class—
 33—GEOMETRICAL INSTRUMENTS, subclass 192, Gages, Point markers, Proportional, for other proportional point spacers.
151. DISTANCE, OPPOSED CONTACTS, PIVOTED, POINT PARALLELIZING. Pivoted opposed contact instruments having means for maintaining the extremities of the legs in parallel relation at all points of adjustment.
152. DISTANCE, OPPOSED CONTACTS, PIVOTED, EXTENSIBLE LEG. Pivoted opposed contact instruments so constructed that the length of one or both legs may be varied.
153. DISTANCE, OPPOSED CONTACTS, PIVOTED, JOINTS AND SETTERS. Limited to those portions of pivoted opposed contact instruments covered by the joint or the means for pivotally adjusting the legs.
Search Class—
 33—GEOMETRICAL INSTRUMENTS, subclass 115, Straight-edge type, Pivot joints, and the subclasses thereunder, for pivot joints for bevels and the like.
154. DISTANCE, OPPOSED CONTACTS, PIVOTED, JOINTS AND SETTERS, SCREW ADJUSTMENT. Joint and setter structure of pivoted opposed contact instruments having screw adjustment means.
Search Class—
 33—GEOMETRICAL INSTRUMENTS, subclass 171, Distance, Single or offset contact, Screw adjustment, Pivotal, for analogous structure.
155. DISTANCE, OPPOSED CONTACTS, PIVOTED, JOINTS AND SETTERS, SCREW ADJUSTMENT, TANGENT. Joint and setter structure of pivoted opposed contact instruments having a screw arranged to tangentially engage with an arc structure having the joint as its center.
156. DISTANCE, OPPOSED CONTACTS, PIVOTED, JOINTS AND SETTERS, SCREW ADJUSTMENT, MEDIAN. Joint and setter structure of pivoted opposed contact instruments having screw adjustment means arranged in a median line with relation to the legs and not having a tangential action.
157. DISTANCE, OPPOSED CONTACTS, PIVOTED, JOINTS AND SETTERS, MEDIAN HANDLE. Joint and setter structure of pivoted opposed contact instruments having a handle arranged to project from the joint in a line median to the legs and extended through the joint.
Search Class—
 33—GEOMETRICAL INSTRUMENTS, subclass 156, Distance, Opposed contacts, Pivoted, Joints and setters, Screw adjustment, Median, for similar devices where the screw head serves as the handle.
158. DISTANCE, OPPOSED CONTACTS, BEAM-TRAMMEL TYPE. Opposed contact instruments having pointed contacting members which are slidably mounted on a beam and are usually intended to be employed on flat surfaces.
Search Class—
 33—GEOMETRICAL INSTRUMENTS, subclass 27, Scribes, Curved line, for similar devices having means specially designed for permitting rotary movement.
159. DISTANCE, OPPOSED CONTACTS, BEAM-TRAMMEL TYPE, SCREW ADJUSTMENT. Beam-trammel instruments provided with screw adjustment.
Search Class—
 33—GEOMETRICAL INSTRUMENTS, subclass 163, Distance, Opposed contacts, Screw adjustment, for other analogous screw adjustment means.
160. DISTANCE, OPPOSED CONTACTS, BEAM-TRAMMEL TYPE, PIVOTED TRAMMEL. Beam-trammel instruments in which at least one of the trammel points is pivotally mounted.
161. DISTANCE, OPPOSED CONTACTS, EXTENSIBLE-RULE TYPE. Opposed contact instruments comprising a plurality of rule sections slidably connected, so that they may be extended, so as to coincide with the distance to be determined.
162. DISTANCE, OPPOSED CONTACTS, ADJUSTABLE WEDGE. Opposed contact instruments comprising adjustable wedge structure.
163. DISTANCE, OPPOSED CONTACTS, SCREW ADJUSTMENT. Opposed contact instruments not more specifically provided for having screw adjusting means.
164. DISTANCE, OPPOSED CONTACTS, SCREW ADJUSTMENT, MICROMETER. Opposed contact instruments provided with a screw adjustment having means to indicate the fraction of a turn that is given the screw.

CLASS 33—Continued.

165. DISTANCE, OPPOSED CONTACTS, SCREW ADJUSTMENT, MICROMETER, PRELIMINARY SETTING. Screw micrometers so constructed that they may be set at the approximate point before the micrometer feature is employed.
166. DISTANCE, OPPOSED CONTACTS, SCREW ADJUSTMENT, MICROMETER, PARTICULAR INDICATOR. Screw micrometers in which some novelty in the indicating feature is involved.
167. DISTANCE, OPPOSED CONTACTS, SCREW ADJUSTMENT, MICROMETER, ATTACHMENTS. Various supports and attachments employed in combination with screw micrometers but in which there is no improvement in the micrometer feature. Does not include preliminary setting devices.
168. DISTANCE, OPPOSED CONTACTS, FIXED. Opposed contact instruments in which the parts are not adjustable.
169. DISTANCE, SINGLE OR OFFSET CONTACT. Means for determining distance between a point and a plane so constructed that contact with the plane does not occur at the shortest distance from the point or in which a single contact member is attached to some support which remains constant. Many of them are called surface gages.
170. DISTANCE, SINGLE OR OFFSET CONTACT, SCREW ADJUSTMENT. Single or offset contact instruments having a screw adjustment.
171. DISTANCE, SINGLE OR OFFSET CONTACT, SCREW ADJUSTMENT, PIVOTAL. Single or offset contact instruments having a pivotal adjustment which is controlled by a screw.
- Search Class—**
33—GEOMETRICAL INSTRUMENTS, subclass 154, Distance, Opposed contacts, Pivoted, Joints and setters, Screw adjustment, and subclasses thereunder, for other screw pivot adjustments.
172. DISTANCE, SINGLE OR OFFSET CONTACT, DIAL. Single or offset contact instruments having an indicator which is automatically controlled by the contact member to show the relative position thereof.
- Search Class—**
33—GEOMETRICAL INSTRUMENTS, subclasses 147, Distance, Opposed contacts, Dial, and 148, Distance, Opposed contacts, Dial, On pivoted type, for other dial contact instruments.
173. DISTANCE, SINGLE OR OFFSET CONTACT, ATTACHMENT TYPE. Means designed to be attached to rules, squares, and the like to serve as a contact member in determining distance.
174. GAGES. Means not more specifically provided for having fixed, adjustable, or self-adjusting members designed to coincide with the limits to be determined.
- Note.**—Some of the instruments found in this group are quite similar to some found under the group of "straight-edge type." Generally speaking, in such instances instruments capable of general use in determining angular or straight line problems are placed in the "Straight edge" group; those limited by structure to a particular use are placed here. Taper gages and "pitch-boards" are in the "Straight edge" group.
- Search Classes—**
33—GEOMETRICAL INSTRUMENTS, subclass 18, Scribes, and the subclasses thereunder, for gages having scriber attachments.
101—PRINTING, subclass 134, Stencil plates, for means designed to mask a portion of a surface while a coating is applied and not provided with means peculiarly adapted to serve as a guide for a marking point.
175. GAGES, CONFORMATOR. Gages so constructed that when pressed against an object they will conform to the same and when removed therefrom will retain a shape corresponding to the shape of the object. Does not include gages having adjustable portions of considerable size, which may be caused to fit up to objects having portions of substantially the same shape as the adjustable portions of the gage and with which the gage is particularly designed to be used.
- Search Class—**
223—APPAREL APPARATUS, subclass 33, Hat machines, Stretchers, for combined conformators and stretchers.
176. GAGES, CONFORMATOR, FLEXIBLE BAND. Conformators having a flexible band which may be caused to conform to an object and retain the shape of that object when removed therefrom.
177. GAGES, CURVE-RULER TYPE. Templets designed for determining or laying out curve lines. Does not include devices in which the curve guide is adapted to be adjusted by pressing it against an object and thereby causing it to conform thereto.
178. GAGES, CIRCULAR SIZE. Gages designed for determining the size of circular or approximately circular objects, either inside or outside.
- Search Classes—**
29—METAL WORKING, subclass 146, Machine chucks and tool sockets, Indicators, for analogous structure.
194—CHECK-CONTROLLED APPARATUS, subclass 102, Fraud-preventives, Size testers, for analogous structure.
223—APPAREL APPARATUS, subclasses 21, Hat machines, Blocks, and 33, Hat machines, Stretchers, for analogous structure.

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CLASS 33—Continued.

179. GAGES, CIRCULAR SIZE, FLEXIBLE BAND. Gages for determining circular size, comprising a flexible band designed to contact around the object at the place where the size is being ascertained.
180. GAGES, COLLOCATING. Gages designed for positioning a plurality of objects relative to each other.
- Note.**—Does not include gages used in marking points regardless of whether objects are to be located at the marked points or otherwise. Does not include devices designed to expedite the assembling of parts of structures rather than for determining the relative position of said parts.
- Search Class—**
33—GEOMETRICAL INSTRUMENTS, subclass 144, Distance, Opposed contacts, Track, and the subclasses thereunder, for devices designed both for positioning track rails with relation to each other and for testing the distance between those already in use.
181. GAGES, COLLOCATING, MACHINE PARTS. Gages designed for positioning the parts of machines.
182. GAGES, COLLOCATING, MACHINE PARTS, ROLLS. Gages designed for positioning rolls.
183. GAGES, COLLOCATING, MACHINE PARTS, TYPE-WRITER. Gages designed for positioning typewriter parts.
184. GAGES, COLLOCATING, MACHINE PARTS, WATCH. Gages designed for positioning watch parts.
185. GAGES, COLLOCATING, TOOL. Gages designed for setting tools either with relation to their support or with relation to the work upon which they are to operate.
- Note.**—Does not include devices for positively serving as guides or supports to control the relation of tool and work, as distinguished from devices which are employed to indicate what the relation should be. Such devices are excluded from the class.
186. GAGES, COLLOCATING, TOOL, SHEARS. Gages designed for indicating the position of shears with relation to the work upon which they operate.
187. GAGES, COLLOCATING, CLAPBOARD. Gages designed for positioning clapboards.
188. GAGES, COLLOCATING, SHINGLE. Gages designed for positioning shingles.
- Search Class—**
20—WOODEN BUILDINGS, subclass 86, Scaffolds, Brackets, Shingling, for combinations of shingle gages and scaffolds.
189. GAGES, POINT MARKERS. Gages designed for marking one or more points at a predetermined location or locations. It is unnecessary that the marking point be included as a part of the structure if an orifice is provided through which the point may operate.
- Note.**—Does not include devices in which a series of points constitute the outline of a pattern and each point is not intended to represent a definite location.
- Search Class—**
33—GEOMETRICAL INSTRUMENTS, subclass 197, Gages, Mortise, for gages employed in laying out mortise work having points to outline the mortise.
190. GAGES, POINT MARKERS, BUTTON OR BUTTON-HOLE. Gages designed for marking the points of location for buttons and buttonholes.
191. GAGES, POINT MARKERS, CENTER. Gages designed for marking the center point.
- Search Class—**
77—BORING AND DRILLING, subclass 18, Drilling machines, Center-drills, for analogous devices used as guides for center drills.
192. GAGES, POINT MARKERS, PROPORTIONAL. Gages designed for marking a plurality of points having means for permitting adjustment of the marking points, but so constructed as to maintain a proportional relation between them.
193. GAGES, AXLE. Gages designed to determine the form of axles.
194. GAGES, DOOR AND WINDOW. Gages designed for fitting doors and windows or their surrounding parts.
- Search Class—**
33—GEOMETRICAL INSTRUMENTS, subclass 197, Gages, Mortise, for gages designed for laying out mortises for hinges or locks.
195. GAGES, HOOFF. Gages designed for determining the shape of hooft in preparing shoes for the same.
196. GAGES, MILLSTONE. Gages designed for determining the trueness of millstone faces.
197. GAGES, MORTISE. Gages designed for laying out mortise work.
- Search Class—**
33—GEOMETRICAL INSTRUMENTS, subclass 18, Scribes, and the subclasses thereunder, for scribes designed for this purpose.
198. GAGES, PAPER TEARING. Gages designed for guides in tearing paper in predetermined shape.
- Search Class—**
33—GEOMETRICAL INSTRUMENTS, subclass 83, Straight-edge type, Paper tearing, for guides for tearing paper along a straight line.

CLASS 33—Continued.

199. GAGES, SCREW THREAD. Gages designed to determine characteristics of screw thread structure.
 Note.—Does not include special contact members used with "opposed contact" instruments for taking the diameter of the threaded bar.
200. GAGES, SPECTACLE. Gages designed to be employed in fitting spectacles.
 Note.—Does not include devices for examining or testing the eye.
201. GAGES, TOOL. Gages designed to determine the form of tools.
202. GAGES, TOOL, SAW. Gages designed to determine the form of saws.
203. GAGES, WHEEL. Gages designed for determining the form or trueness of wheels.
204. DIRECTION INDICATORS. Means designed for indicating direction which are controlled by the action of some force.
 Note.—Does not include indicators of direction of flow.
- Search Class—**
 33—GEOMETRICAL INSTRUMENTS, subclass 46, Light-ray type, and the subclasses thereunder, for levels, plumbs, and magnetic compasses used with instruments in that group. However, when there is improvement in the direction indicator *per se* it is cross referenced into this group.
205. DIRECTION INDICATORS, BORE-HOLE TESTERS. Means designed for determining the direction of deep holes in the earth. Frequently comprise automatically locking pendulums and magnetic needles.
206. DIRECTION INDICATORS, LEVELS AND PLUMBS. Means for indicating direction adapted to be controlled by terrestrial gravitation.
207. DIRECTION INDICATORS, LEVELS AND PLUMBS, SPECIAL SUPPORTS. Levels and plumbs not more specifically provided for having supporting structure designed to engage particular objects.
- Search Class—**
 33—GEOMETRICAL INSTRUMENTS, subclasses 7, Apparel, Leveling feature; 84, Straight-edge type, Shaft aligning and leveling; 85, Straight-edge type, Wall-guides and plumbs; 88, Straight-edge type, Leveling feature; 89, Straight-edge type, Leveling feature, Square type; 145, Distance, Opposed contacts, Track, Leveling feature, and 205, Direction indicators, Bore-hole testers, for other special mountings, also subclass 46, Light-ray type, and the subclasses thereunder, for levels and plumbs used with instruments of that group.
208. DIRECTION INDICATORS, LEVELS AND PLUMBS, FOLDING AND EXTENSIBLE. Levels and plumbs having stocks whose length may be varied.
- Search Class—**
 33—GEOMETRICAL INSTRUMENTS, subclass 88, Straight-edge type, Leveling feature, for folding rules and the like having level attachments.
209. DIRECTION INDICATORS, LEVELS AND PLUMBS, LIQUID COLUMN. Levels and plumbs comprising one or more vertical tubes containing a liquid and communicating with another tube or other receptacle, so that the liquid may seek its level in the communicating vessels.
210. DIRECTION INDICATORS, LEVELS AND PLUMBS, COMPOUND BUBBLE AND PENDULUM. Levels and plumbs comprising both a bubble tube and a pendulum indicator.
211. DIRECTION INDICATORS, LEVELS AND PLUMBS, BUBBLE. Levels and plumbs comprising a closed receptacle nearly filled with a liquid, sufficient space being left for the formation of a bubble.
- Search Class—**
 33—GEOMETRICAL INSTRUMENTS, subclass 207, Direction indicators, Levels and plumbs, Special supports, and the subclasses indicated in the search notes thereto, for conventional bubble levels in special mountings.
212. DIRECTION INDICATORS, LEVELS AND PLUMBS, BUBBLE, MULTI-INDICATING BUBBLE. Bubble levels or plumbs having curved receptacles designed to indicate the degree of inclination by the position of the bubble with relation to a scale.

CLASS 33—Continued.

- Note.—Inventions are not placed here merely because the tube is shown as slightly curved when they are not specially designed for indicating the amount of inclination.
213. DIRECTION INDICATORS, LEVELS AND PLUMBS, BUBBLE, ADJUSTABLE. Bubble levels and plumbs which are constructed for adjustment to different inclinations.
- Search Class—**
 33—GEOMETRICAL INSTRUMENTS, subclass 88, Straight-edge type, leveling feature, for bubble levels in which the bubble receptacle support serves as one arm of a level and may be adjusted with respect to the other arm.
214. DIRECTION INDICATORS, LEVELS AND PLUMBS, BUBBLE, ADJUSTABLE, ADJUSTING MEANS. Adjustable bubble levels or plumbs having means for positively making the adjustment.
215. DIRECTION INDICATORS, LEVELS AND PLUMBS, PENDULUM. Levels and plumbs comprising a pendulum.
216. DIRECTION INDICATORS, LEVELS AND PLUMBS, PENDULUM, BOB TYPE. Pendulum levels and plumbs comprising a bob supported by a flexible line.
- Search Class—**
 33—GEOMETRICAL INSTRUMENTS, subclass 207, Direction indicators, Levels and plumbs, Special supports, and the subclasses indicated in the search notes under that subclass, for conventional plumb bobs mounted on special supports.
217. DIRECTION INDICATORS, LEVELS AND PLUMBS, PENDULUM, BOB TYPE, REEL FEATURE. Bob-type pendulum levels and plumbs having a reel in combination with the bob for winding up the line.
218. DIRECTION INDICATORS, LEVELS AND PLUMBS, PENDULUM, ADJUSTABLE. Pendulum levels and plumbs which are constructed for adjustment for different inclinations.
219. DIRECTION INDICATORS, LEVELS AND PLUMBS, PENDULUM, ADJUSTABLE, ADJUSTING MEANS. Adjustable pendulum levels or plumbs having means for positively making the adjustment.
220. DIRECTION INDICATORS, LEVELS AND PLUMBS, PENDULUM, CHECKING FEATURE. Pendulum levels and plumbs having means for causing the pendulum to come to rest quickly.
221. DIRECTION INDICATORS, LEVELS AND PLUMBS, PENDULUM, SECURING FEATURE. Pendulum levels and plumbs having means for holding the pendulum against vibration.
222. DIRECTION INDICATORS, MAGNETIC COMPASSES. Direction indicators comprising a poised magnetic needle adapted to be controlled by terrestrial magnetism.
- Search Class—**
 33—GEOMETRICAL INSTRUMENTS, subclass 46, Light-ray type, and the subclasses thereunder, especially subclass 72, Light-ray type, Horizontal angle measurers, for compasses used with instruments of that group.
- 33—GEOMETRICAL INSTRUMENTS, subclass 205, Direction indicators, Bore-hole testers, for magnetic needles designed to be automatically secured in position in testing bore holes.
223. DIRECTION INDICATORS, MAGNETIC COMPASSES, LIQUID. Magnetic compasses in which the needle is wholly or partially supported by a liquid.
224. DIRECTION INDICATORS, MAGNETIC COMPASSES, DEVIATION COMPENSATORS. Means used in connection with magnetic compasses for making allowance for error in the direction of the needle.
225. DIRECTION INDICATORS, MAGNETIC COMPASSES, DEVIATION PREVENTERS. Means used with magnetic compasses to prevent deviation due to local attraction.
- Search Class—**
 58—HOROLOGY, subclass 106.5, Anti-magnetic devices, for somewhat similar structures employed on watches and the like.

EDWARD B. MOORE,
 Commissioner.